

INSIDE DOPE

by GEORGE F. TAUBENECK

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Story of the Week

Charles F. Kettering was reminiscing with friends not long ago when the name of Lindbergh was mentioned.

"Boss Ket" recalled that Lindbergh's solo flight to Paris was one of the few occasions when he had the last word with his wife. Mrs. Kettering, it seems, was highly excited by the fact Lindbergh had done it all by himself.

"That doesn't impress me so much," Kettering depreciated, "as if a committee had done it!"

By coincidence, in a recent issue of *Advertising Agency* magazine, Howard Newton observes:

"There's nothing wrong with conferences that a 12-day week wouldn't cure."

Russian Story

A Polish peasant had four sons. Three were big shots in Russia. One was an artist, the second a commissar, and a third a colonel.

"With three such successful sons you must be a proud man," a friend congratulated the peasant.

"I have not told you all," concluded the Pole. "My fourth son is unemployed in the United States."

"Too bad. I sympathize with you."

"Sympathize? Too bad? Why, he sends me what I need to live on every month."

Gags of the Week

"News Item: 'Statisticians find that nine out of 10 women are knock-kneed.' And for years we'd been thinking that statisticians never had any fun!"—*Gas Leaks*.

"Statistics show that Yale grads have 1.3 children. The same statistics show that Vassar graduates have 1.7 offsprings. All of which only goes to prove that women have more children than men."—*Inter. Ocean Optimist*.

Quotes of the Week

"When a politician promises you something for nothing, you can be pretty sure that he will get a lot of the something and that you will get a lot of the nothing."—*Roster*.

"The best way to get ahead is to have one."—*Pure Globe*.

"Anything which is not built right will not run, whether it is a watch, a machine, a church, or a political movement."—*Henry Ford*.

"Capitalism and communism stand at opposite economic poles. Their essential difference is this: The communist, seeing the rich man and his fine home, says: No man should have so much. The capitalist, seeing the same thing, says: All men should have as much."—*Phelps Adams*.

Unsung Master Salesman

First automobile the writer ever owned was an Oakland, purchased from one of the most dynamic salesmen of our generation. His name: G. A. "Dick" Richards.

At one time he was the biggest automobile dealer in the United States, and was selling six million dollars worth of automobiles annually. Before he acquired an Oakland dealership, he'd sold more than 100 million dollars worth of tires and other rubber products for Harvey Firestone—all before he was 30 years of age.

It bothers me that I've neglected to write about this masterful salesman and upholder of American Principles until now. In several books and hundreds of editorials and "columns" devoted to Selling and Americanism, I've extolled many another

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AIR CONDITIONING & REFRIGERATION News

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Shanklin Is ACRMA Head; Calls for Broader Program

HOT SPRINGS, Va.—With an attendance larger than any in its long history, the Air Conditioning and Refrigeration Machinery Association, in its recent annual meeting here, climaxed a year's operations that included activities in the fields of codes and standards formulation, statistics and marketing, foreign sales promotion, and inter-industry relations.

Arthur P. Shanklin, vice president of Carrier Corp., is the new ACRMA president, succeeding W. H. Aubrey of Frick Co., Inc. In accepting the leadership of ACRMA, Shanklin said: (Concluded on Back Page, Column 1)

Contract Mfg. To Be Dropped by Crosley

CINCINNATI—The Crosley and American Central Divisions of Avco Mfg. Corp. are planning to discontinue contract manufacturing of refrigerators for other firms by the end of the current year, it has been learned.

The need to devote all its production facilities to Crosley line brought about this decision, it was indicated.

Crosley had been making refrigerators for the Deepfreeze line, and the Armaid and Supremacy private label models for Affiliated Retailers, New York, and some cabinets for Admiral.

Deepfreeze in turn had been making some home freezers for Crosley, and this arrangement is expected to be terminated. Admiral is expected to get more production from Seeger, and is allegedly planning to convert its recently acquired Midwest Mfg. Co. division in Galesburg to refrigerator production. Affiliated Retailers indicated it would seek a new source of refrigerators.

Westinghouse 'Furloughs' 1,500 In Union Dispute

SPRINGFIELD, Mass.—Some 1,500 production workers at the Westinghouse plant here, which makes compressors for refrigerators and home freezers and some small appliances, have reportedly been "furloughed" because of a union-inspired slowdown of production.

Issue over which the slowdown came is a matter of grievance procedure, the union demanding that the local's president be permitted to go through the plant at will, without restriction on his time, to check on grievance claims. This clause had been incorporated in a previous contract, but management eliminated it in current negotiations.

A serious cut in production is threatened by the necessity of "furloughing" the production workers, the management stated.

Mason Roberts Elected Vice President of GM

DAYTON — Mason M. Roberts, general manager of the Frigidaire Division, has been elected a vice president of General Motors Corp.

Roberts joined the Frigidaire organization in 1928 and became factory manager by 1941. He was named general manager of the Dayton refrigeration and appliance operation on April 1, 1948.

New Issues Can Snarl Excise Bill In House

WASHINGTON, D. C.—The House Ways and Means Committee was considering final changes this week on the proposed alterations in the excise taxes on refrigerators and major appliances, but the tax situation is so snarled that a top House member told reporters that he did not know "if we are ever going to get a tax bill."

For one thing, it appeared as though the House action giving a lower tax to so-called economy brand cigarettes may bring the tax bill to the House Floor under an "open rule," under which the bill would be open to any and all amendments from the floor.

This might bring a rush of new tax cuts by members eager to please constituents, but sources here believe it would mean the sure death of any tax bill by Presidential veto.

The changes proposed by the tax committee included the reduction of the household refrigerator tax from 10 to 7%, while imposing a new 7% tax on home freezers. The 10% tax would be removed on all types of kitchen ranges, household-type water heaters, toasters, electric heating pads and blankets, hand ironers, electric space heaters, and electric baby bottle warmers.

The House Ways and Means Committee voted formally to reject the administration's proposal to put a 10% manufacturers' excise tax on television sets.

After the tax bill gets out of the House it must go to the Senate, and then on to a conference committee.

N. Y. Water Supply Better But Cooling Controls To Stick

NEW YORK CITY—While the New York City water supply situation has improved to the point where the city's bans on swimming pools and garden sprinkling are being relaxed for a 30-day trial period, the requirements that all refrigeration and air conditioning systems of 3 tons capacity and over must use water-saving devices still stands, it has been announced by New York Water Commissioner Stephen J. Carney.

Carney's statement indicated that he considered the regulation on cooling systems to be permanent and that he expected it, through the elimination of water waste, to yield permanent benefits for long-term conservation.

Sunbeam Gets Injunction Against Chicago Dealer

CHICAGO—A temporary injunction restraining Joseph Winkler & Co., local appliance dealer, from selling Sunbeam products at less than posted prices was issued here recently by Superior Court Judge Frank Padden.

Sunbeam Corp., manufacturer of housewares, accuses the dealer of illegally cutting the fair traded prices on its products and seeks an accounting of Winkler's books to determine damages, plus costs, fees, and charges, in addition to attorney's fees.

Winkler's attorney agreed to the injunction.

Freezer 'Specs' Next Week!

Next week AIR CONDITIONING & REFRIGERATION NEWS will publish its third annual HOME & FARM FREEZER SPECIFICATIONS issue. As in previous years, this issue will provide a fresh, up-to-the-minute "Who's Who" in the freezer manufacturing field, providing specific, vital information not only on every widely merchandised brand of freezers but on every model in the line.

In addition, the issue will be spiced with a wide variety of editorial articles on the ways and means of promoting the sale of home freezers. The information is garnered straight from the field from men whose job it is to sell these increasingly important appliances.

It is an established fact that freezers are selling better this year than ever before. Look over the big "Specs" issue next week and see for yourself what this young and lusty appliance has to offer you!

New Monitor Washer Set for Mart Debut

NEW YORK CITY—Monitor Equipment Corp.'s new "Prestomat" washer and the company's new plan of operations will both make their debut at the Summer Marts opening June 19 in Chicago.

The "Prestomat" washer and its companion, the previously produced Aerator, will be the only products Monitor will distribute in the U. S., under its new plan of operation that came out of the reorganization plan submitted to a Federal court.

The washers will be distributed through 48 distributors, it is said. Dealers will be asked to handle only the Monitor models in the washer field, but of course may handle other appliances.

Advertising in national magazines and in a cooperative newspaper campaign will stress Monitor's claim that the "Prestomat," which carries a tentative price of \$169.95, will wash clothes faster while using less

(Concluded on Page 4, Column 1)

U. S.-Backed Improvement Loans Asked by Grocers

CHICAGO—Federal insurance on bank loans to food retailers for building new stores or modernizing present ones was called for in a resolution passed by the National Association of Retail Grocers in convention here.

The resolution recommended that this insurance on bank loans up to \$50,000 be "similar to present Federal insurance on loans for home improvements, on a self-sustaining basis, and without cost to the taxpayers."

Most grocers often find it impossible to finance new stores through ordinary banking facilities, the resolution added.

Federal Refrigerator Planning Stock Shift

WAUKESHA, Wis.—Federal Refrigerator Co. has contracted to purchase all of the stock holdings of Charles Dieringer and R. J. Loudon, thus leaving all outstanding stock in the hands of the three company officers, John Romadka, president announced recently.

Romadka said that Dieringer

(Concluded on Page 4, Column 3)

Midyear Marts In Chicago Will Open June 19

Norge Headquarters Now In Merchandise Mart; Few New Items Expected

CHICAGO—First of the Mid-year Home Furnishings Markets to be held before July 4 under the new dates for the Markets set up this year, the two weeks' showing opening next Monday, June 19, at the American Furniture Mart and the Merchandise Mart are not expected to turn up any sensational product developments in the appliance field.

One change in location of a major manufacturer will be noted by those attending. Norge Div. of Borg-Warner Corp. has moved its administrative and sales offices from Detroit to the Merchandise Mart, and will occupy approximately 35,000 sq. ft. of space on the building's second floor. Approximately 10% of the area will be devoted to a display of Norge products. Norge formerly had a display area in the Furniture Mart.

Whiting Appliance Co. will show its new lines of refrigerators, freezers, room air conditioners, washers, gas conversion burners, and radio-phonograph combinations in space 14-101, the Merchandise Mart.

Monitor Equipment Corp. is planning to introduce its new "Prestomat" washer, which it will manufacture under a new corporate reorganization plan.

Westinghouse will bring out a new deluxe double-oven range at the Marts, and Speed Queen Corp. and Temco, Inc. will show new clothes driers. Also to be displayed, of course, are the new models which many appliance manufacturers have introduced since the January markets.

O'Donnell Named as 'Contact' Executive By Contractor Group

CHICAGO—Roger J. O'Donnell has been named executive vice president of the Refrigeration & Air Conditioning Contractors Association, and has taken a swing through part of the country, to contact local contractor groups in a drive to build both local associations and the national group, and to get activities started in meeting problems that face contractors.

O'Donnell has a wide background of association experience and also government contact work. He has most recently been executive director of the Trailercoach Dealers Association, and before that executive secretary of the American Seed Trade Association. Both of these jobs required a wide variety of activity in association work.

He has also been a labor relations specialist in Washington, and has had industrial relations experience in the aircraft and chemical industries. It is RACCA's plan for O'Donnell to travel extensively. In his greetings to the members published by a RACCA bulletin following his appointment, O'Donnell said:

"It would appear that there is room for improvement in the relation-

(Concluded on Page 4, Column 2)

Philco Dealers To Meet In Atlantic City June 19

PHILADELPHIA—What is claimed will be the largest sales meeting of its kind ever staged by a major appliance manufacturer is being prepared by Philco Corp. to introduce its new lines to some 5,000 dealers from all parts of the country.

The meeting will be held in convention hall, Atlantic City, from June 19-22, according to Raymond B. George, sales promotion manager. The dealers will be the guests of Philco and its distributors.

In addition to new lines, fall advertising and sales promotional plans will be introduced.

demand
DETROIT CERTIFIED VALVES and CONTROLS

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 THAT BRINGS YOU
 ALL 3**

**For One Convenient Source
 Deal with Authorized
 DETROIT Wholesalers!**

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Division of AMERICAN RADIATOR &
 Standard Sanitary Corporation
 CANADIAN REPRESENTATIVE: RAILWAY
 ENGINEERING SPECIALTIES, LTD.—
 MONTREAL, TORONTO, WINNIPEG



DETROIT HEATING AND REFRIGERATION
 CONTROLS • ENGINE SAFETY CONTROLS •
 FLOAT VALVES AND OIL BURNER EQUIP-
 MENT • DETROIT EXPANSION VALVES AND
 REFRIGERATION ACCESSORIES • STATION-
 ARY AND LOCOMOTIVE LUBRICATORS

Serving home and industry. AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS
 DETROIT LUBRICATOR • KEWAWEE BOILER • ROSS HEATER • TONAWANDA IRON



**Syrup Dispenser Controls
 Storage Temperature
 With Adjustable Grill**

PHILADELPHIA—Control of the storage temperature of ingredients through an adjustable grill bottom is provided in the new model "D" Bob-ette syrup and crushed fruit dispenser, which is being manufactured by United Sound and Signal Co., Inc., and distributed nationally by Pennco, Inc., 201 N. Broad St., here.

The Model "D" Bob-ette dispenser embodies other improvements, including a non-breakable plastic milk compartment cover; a larger and more resilient tubular gasket for sealing the unit to the ice cream cabinet, and newly-designed syrup pumps which have extra-long spouts for added convenience to the user.

Double-layer insulation sheathed in a metal "sandwich" is now being used to assure low storage temperatures under the most adverse conditions.

The Bob-ette unit itself makes it possible for a "dry" stop to serve milk drinks and sundaes as it fits into the collar of the chest-type ice cream cabinet and provides storage space for two flavors of syrup, four sundae toppings, and six quarts of milk.

New "how-to-use-it" literature on the Bob-ette unit has been prepared for the use of ice cream manufacturers' sales departments, and is now available upon request from Pennco, Inc.

**Store To Loan TV Sets
 To Appl. Buyers**

NEW YORK CITY—Sunset Appliances Stores, Inc., operating a group of appliance stores in the metropolitan New York area, is planning to repeat its offer of a free three months' loan of a television set with the purchase of a Frigidaire appliance.

In the original promotion the offer of the free loan of the television set was limited to the first 200 persons who purchased at a Sunset store one of the Frigidaire appliances shown in the advertisement announcing the offer.

The response quickly cleaned out the stock of television sets the store had allotted for the "loanouts." Officials of the company believe that most of the loans will become sales.

**Howard Refrigerator Plans
 Move to New Plant In Aug.**

PHILADELPHIA—Howard Refrigerator Co., Inc., here is planning to move into its new plant at 4745 Worth St. in Philadelphia by August, according to Albert Fogel, president.

The plant is located on the main Pennsylvania Railroad line between Washington and Philadelphia, with a railroad siding going to the plant. More than 65,000 sq. ft. of plant space, mainly on one floor, will be fitted out with latest production facilities for the refrigerator products which Howard makes.

At present the Howard line consists of meat display cases, frozen food display cases, walk-in coolers and walk-in low temperature coolers, wall display cases, beverage coolers, reach-in refrigerators, and ice cream cabinets. The line will be expanded to include several other items.

**Saconomy Plant Will Be
 Completely Air Conditioned**

MANNING, S. C.—Announcement is made by the Clarendon Industrial Corp. that what is claimed to be the South's first completely air conditioned garment plant, which ultimately will employ 200 people or more, will be constructed here immediately and will be occupied by Saconomy of Manning, a unit of S. Augstein & Co., Inc., clothing and textile manufacturer.

According to Fred Rummler of Cheraw, general superintendent of the South Carolina plants, the 15,000 sq. ft. building, together with office space and a superintendent's home, will be constructed on Cedar St. As soon as it is completed, training of operators will be started.

All-Temp Refrigeration Files

BUFFALO—A business name has been filed in the Erie County clerk's office for the All-Temp Refrigeration, 847 Niagara St., Buffalo, by John C. Voltz.

**80% of Purchasers
 Of Refrigerators Were
 Former Ice Box Users**

GALVESTON, Tex.—Confirming its belief that low-income people will buy quality appliances if it is made possible for them to do so, the Southern Union Gas Co. district office here in a recent 30-day campaign sold 366 Serval gas refrigerators, 80% of them to former ice box users.

Low down payment and greatly extended terms was the key to the success of the campaign, which was conducted in 38 towns in three states.

In some districts, the terms were \$5 down with 60 monthly payments as low as \$4.05 per month. A 5% carrying charge was made. Liberal trade-in allowances were also made.

To back up the campaign, newspaper and radio advertising emphasized the convenient buying terms.

The winning salesman in Galveston was C. L. Byers, who sold 115 refrigerators during the 30 days. He made 384 calls, 31 of them at night, to reach this volume.

Over a six-month period, Byers has made 2,028 calls, 196 of them at night. He sold 318 refrigerators, averaging 6.4 calls per sale.

Dixie Highway Cafe Cooled

MOMENCE, Ill.—Air conditioning equipment is now in operation at the Dixie Highway Cafe in Momence. The building is the first in the town's business district to feature air conditioning.

**Count these BENBAR features!
 They add up to MORE SALES!**



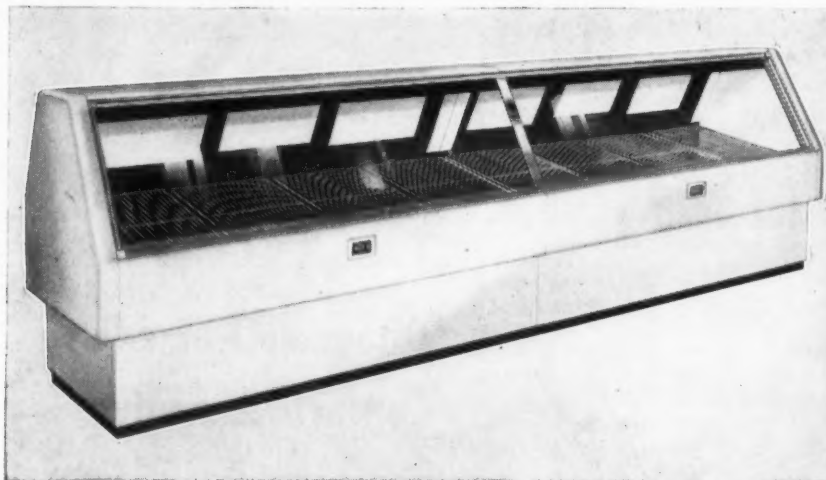
- Hermetically sealed condensing unit
- Panelyte covered door jams—Frost breaking lock
- Trouble free capillary system
- Two step door construction
- 4" fiberglass insulation

Sell the kind of freezer that all America is demanding. 2 standard sizes—14 and 17 cu. ft.

DISTRIBUTORSHIPS NOW AVAILABLE

No contemplated price increases between now and June 1, 1950 in spite of steel increases.

**AUGUST G. BARKOW
 MANUFACTURING CO.**
 2230 S. 43rd St., Milwaukee 15, Wis.



Shown are two Model 3107 cases, each 7-ft. long, set together in line. Two or more of either length case can be placed end-to-end in a continuous line.

for
ENDLESS
 display
 with
ENDLESS
 appeal
 and
ENDLESS
 profits!

**SERIES
 3100
 KOCH
 TOP
 DISPLAY
 CASE**

Here's a new beauty to add to the KOCH Refrigerator line, the line of least resistance.

Now you can equip a complete market of any size with KOCH refrigerated fixtures. There are refrigerators and display cases for meats, delicatessen, dairy products, produce, bottled beverages, and all other perishables in today's market. KOCH offers a money-making proposition to qualified dealers and distributors. Some territories are still available. Write today!

Remember the name . . . SERIES 3100 . . . a totally new, completely different, absolutely perfect answer to the need for continuous top display cases. The basic nominal seven and ten foot units will multiply up to any length needed anywhere, with full length, continuous display, continuous fluorescent lighting, continuous refrigeration, and continuous selling power!

QUALITY! You name it. Series 3100 has it. FULL porcelain exterior . . . triple PLATE glass front . . .

STAINLESS steel liner bottom . . . exclusive Miraflex TWIN coils . . . full FLUORESCENT lighting . . . all WELDED steel construction . . . typical KOCH workmanship . . . not a single feature that isn't absolutely tops of its kind!

MAGNETIC DISPLAY! The triple plate glass front is no barrier in this case. It's at the perfect angle to protect the display. It does not interfere with visibility. Add full length fluorescent lighting and three-level adjustable shelves to the inviting design of the exterior and you have a fixture that will, without question, be the focal point of the store.

EASY TO WORK! It doesn't take a contortionist to work out of this beautiful KOCH case. A butcher can get to the items down-front just as readily as he can those in the back. This is an example of perfect KOCH design and engineering.

EASY TO JOIN! This case can be used individually, or any number of them can be set in line, end-to-end, to make one continuous unit of any length. Multiple installations are made quickly, with each individual unit becoming a permanent, integral part of the full length case.

KOCH Refrigerators

NORTH KANSAS CITY 16, MO.

SINCE 1883

KOCH Refrigerators,
 North Kansas City 16, Mo. ☐ RN-12
 Gentlemen: Please send full information regarding
 KOCH refrigerators.

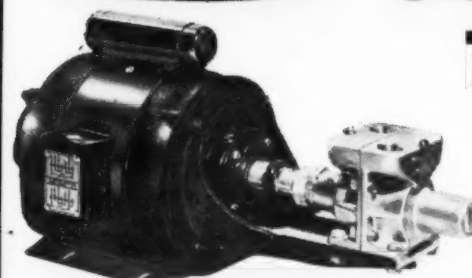
Name

Address

City Zone State

**ATTRACTIVELY PRICED FOR THE
 ORIGINAL EQUIPMENT MANUFACTURER**

**ECO
 GEARLESS PUMPS**



**COOLING
 TOWER
 PUMP**

4 GPM per TON

- ACCURATELY MEASURED FOR 1 AND 2 TON COOLING TOWERS
- EQUIPPED WITH HYDRAULICALLY BALANCED BUILT-IN BY-PASS. CONTROLS EXACT AMOUNT OF WATER DELIVERED
- ALL NAVAL BRONZE HOUSINGS WITH MONEL WORKING PARTS
- QUIET, SMOOTH RUNNING. BEARINGS REQUIRE NO LUBRICATION
- AVAILABLE AS MOTOR DRIVEN UNITS

SEND FOR
 ECO PUMP
 BULLETIN
 B-2

Manufacturers of
 Gearless Pumps for
 Industrial, Farm,
 Home & Marine use.

ECO ENGINEERING CO.

12 New York Avenue • Newark 1, N. J.



"I'd like to pin a medal"

"Yes, I'd like to pin a medal on every Kelvinator I've sold, for faithful performance of duty!"

"The dependability of Kelvinator products is a thing of tremendous importance to me . . . it gives me peace of mind because I know that every Kelvinator I sell *will stay sold*."

"And there's a good reason for this faithful performance and unfailing dependability."

"You find it in the way a Kelvinator is built . . . in the time-proved top quality materials . . . in the refrigerating system that's engineered to deliver the kind of results people want . . . even under toughest operating conditions."

"And above all you find it in the Kelvinator Polarsphere . . . the cold-making mechanism that has been proved reliable through the years, with millions now in use."

"Yes, Kelvinator gives the kind of dependability and product advantages that could only come from long years of manufacturing experience."

"The important point is that Kelvinator products are *planned* to be that way, for my franchise book says exactly this: '*Through the years, Kelvinator has adhered to the principles of "quality first". In material specifications, in production practices, in manufacturing tolerances, in inspection procedures, this is a demanding first consideration. Kelvinator is pledged to the continued application of these quality standards in the building of all Kelvinator products.*'"

"There it is, in black and white. And Kelvinator carries its pledge out to the letter. There are no ifs, ands, or buts in a Kelvinator product or a Kelvinator sale."

"That's why I'd like to pin a medal on every Kelvinator that has gone out of my store. And I'm sure that every other Kelvinator dealer feels the same way about it."

GET MORE *Get* **Kelvinator**

...THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY

KELVINATOR, DIVISION OF NASH-KELVINATOR CORPORATION, DETROIT 32, MICHIGAN

'Tell-It-To' Device Aids Window Shopping

NEW YORK CITY—New Yorkers who see appliances they want in the windows of the Lewis & Conger store here after hours or on Sundays and holidays can order them by telling it to the "Tell-It-To."

The Tell-It-To, a new window-shopping device made by L. A. Darling Co., Bronson, Mich., was recently installed in the south window of the housewares and appliance store at 45th St. and the Avenue of the Americas.

New Monitor Washer--

(Concluded from Page 1, Column 4) water and soap. The same principle of the moving stream of air, soap, and water that was used in the "Aerator" is said to be used in the new model.

Hoover, Ltd., London, England has exclusive manufacturing and sales rights to Monitor appliances in areas outside of the western hemisphere. The English firm produced 300,000 washers during 1949. It is estimated that 250,000 of the "Aerator" washers have been sold in the U. S.

The corporate structure of the company will not be changed much by the reorganization, it is indicated. T. K. Quinn has been president and board chairman, and Paul B. Zimmerman executive vice president. It is thought that George Gibson, head of Gibson Mfg. Co., Bellevue, Iowa, one of the firms making the washer may become an executive.

RACCA Names O'Donnell-- Dairy Industries Supply Assn. Offices Moved

(Concluded from Page 1, Column 5) ship between some segments of the industry. It is elementary that each group has its function to perform and is entitled to operate towards the end without interference (or infringement) by any of the other groups. Failure to recognize these restrictions results in disharmony, inefficiency and bad trade relations—and in some instances bad public relations.

"Perhaps the most effective manner to accomplish an understanding of the problems of each segment of the industry is to have an active industry-wide committee, the function of which would be to study all matters which affect the relationships between the various groups."

"Thus, if a manufacturer wanted clarification or explanation of some wholesaling or contracting practice, it would be submitted to the committee to study and to make recommendations thereon. So, too, a contractor or a jobber could submit his grievances or suggestions to such a committee. I am sure that such an arrangement would eliminate a large amount of critical talking which at present is based largely on a lack of understanding of the problems of the 'other fellow.'"

San Antonio Dealer Moves

SAN ANTONIO—The James Kerr Co., dealer for Carrier and Philco air conditioners, Kelvinator appliances, and a number of other lines, formerly located at 1826 Broadway, has moved to 2000 Broadway.

Federal Refrigerator--

(Concluded from Page 1, Column 4) has resigned from the board of directors which now consists of Romadka; Loudon; A. T. Mickle, vice president and sales manager; and Otto C. Scherr, Jr., secretary and treasurer.

Romadka also announced that Federal has taken over territories formerly handled by the Loudon Sales Co. New distributors and dealers are now being established in this territory by direct factory agents, he said. He added that Loudon Mfg. & Sales, Inc., will continue to act as distributor for Federal in the states of Minnesota, Iowa, North Dakota, South Dakota, and Montana.

"No change of management is contemplated," he declared. "More active selling is producing increased sales and production. Sales for 1950 are 40% over 1949."

Chilled Liquors Move Best, Storekeeper Finds

SYRACUSE, N. Y.—Refrigerated cocktails, wines, and champagnes are consistently good sellers in the liquor store of M. Siegelman Co., N. Salina and E. Willow Sts. here.

The items are chilled in a special refrigerated case in the store and ready to serve upon purchase. The firm promoted the refrigerated liquors in its newspaper advertising.

New Method of Making Milk Shakes Described

SEATTLE—A revolutionary method of making milk shakes and malts is described in a two-color folder being offered by the Sweden Freezer Mfg. Co., here.

Inner pages of the folder graphically compare the current milk shake making method with this new method. Copy further explains the working of the "Frigidmixer way" of drawing shake mixture directly from the refrigerated machine.

The folder provides a further service by devoting the back page to a cost-figuring chart, with brief explanation of its use, plus an example for demonstration.

Dolland Is Coolerator Factory Superintendent

DULUTH, Minn.—J. F. Dolland has been appointed Coolerator factory superintendent, it was announced by Corliss V. Little, manager of the Coolerator manufacturing division.

Formerly assistant superintendent of Seeger Refrigerator Co. in St. Paul, and production manager of the Vaco Products Co., Chicago, Dolland will supervise all the factory production of the Coolerator plants in Duluth.

New Orleans Apartment Building To Be Cooled

NEW ORLEANS — Orleanian Apartments, the first large apartment building to be constructed here since the war, will be air conditioned by a Worthington 280-ton system.

New GM Vice Pres.--



M. M. ROBERTS

McCabe-Powers Buys American Coach Co.

ST. LOUIS—McCabe-Powers Auto Body Co., here, has purchased the American Coach & Body Co., Cleveland, said to be the oldest and largest manufacturer of automotive equipment for public utilities.

McCabe-Powers' commercial body division produces bodies that are specialized to fit the needs of many industrial users, particularly bakers, breweries, service trades, coal and material handling firms, delivery services, and similar occupations.

Production Increased By Ice-O-Magic Corp.

MINNEAPOLIS — Ice-O-Magic Corp. announced that it has "greatly increased" production of its ice-making machine in the past month and that orders are now being filled rapidly.

In the meantime, sales and advertising plans have been stepped up to keep pace with stepped-up output, the company said. The machine makes up to 700 lbs. of clear ice cylinders daily, according to the manufacturer.

BRUNNER
SINCE 1906

AIR CONDITIONING builds business



"Packaged" AIR CONDITIONING

... as easy to sell as cornflakes!

Air Conditioners are as much a part of any refrigeration equipment or service business as cornflakes are a grocery store item... and as easy to sell.

Every business depending upon human traffic for the moving of merchandise recognizes customer comfort as the No. 1 attraction, therefore your potential customers are all those retail type businesses in the area you serve.

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NORGE DIVISION, Borg-Warner Corporation, Merchandise Mart, Chicago 54, Illinois

(In Canada: Addison Industries, Ltd., Toronto)



Keeping Candy Salable

Studies Indicate Condensation Is the Biggest Problem Candy Vendors Have To Lick In Using Refrigerated Storage

BERKELEY, Calif.—Storing candy under refrigeration to preserve top quality and flavor is one of the refrigeration applications for which it is difficult to prepare standard "rules."

Because for hard and fast rules to follow in order to assure that the candy will remain in the best condition for sale, there aren't many that apply right down the line.

But recent studies of storage conditions in refrigerated warehouses indicate some patterns that may serve as guides to effective candy handling. In that respect they should prove of value to commercial dealers who merchandise candy store equipment.

The data, interpreted by the Refrigeration Research Foundation in Bulletin No. 50-2 from studies made by its own organization as well as the National Association of Refrigerated Warehouses and the National Confectioners Association, stresses the fact that condensation on candy is the major difficulty—one that two current research projects are still struggling to surmount.

Consequently much care has to be exerted in choosing the proper temperature and humidity conditions for storage in order to avoid the occurrence of dewpoint on packages or on the candy itself when removed to higher atmospheric temperatures. For this reason, the report claims, lower

ranges of non-freezing environment are less frequently used.

How To Avoid Condensation

But there are ways to beat the condensation problem:

1. By gradually raising storage room (and candy) temperature.
2. By removing candy from storage room when exterior temperature is at minimum level, as at night.
3. By avoiding removal of candy from storage room during markedly warm, humid, or rainy weather.

"Maintenance of specific atmospheric moisture conditions below certain maximal limits is much more important than insistence on certain temperatures within narrow ranges," the foundation states. "This does not mean that lower cooler temperatures will not give longer storage life or better quality for some candies. But, aside from the condensation problem, it is much more essential to maintain specified humidity conditions than to insist on precise temperatures."

Conditions found in warehouses and retail stores show that this condensation often weakens or distorts candy packages. To rid rooms of undesirable moisture some firms have utilized steam coil heating or portable calcium chloride dehumidifiers.

Condensation, of course, isn't the only problem present in refrigerated

candy storage, the report declares. There are likewise the matters of preventing insect infestation, retarding rancidity, and combating odor absorption. The first two of these appear to be effectively handled by holding candies between 48-50° F., but the last one may need further research.

Because many candies (with ingredients such as nuts) readily absorb foreign odors, it becomes a choice of either storing such candies in separate rooms or in clean, odor-free compartments with non-odor-producing items. As for air purification, the study concludes:

"It is likely to be very useful in candy storage, although it has not been extensively tested."

The difficulty of generalizing about temperature-humidity requirements in candy storage derives from the fact that optimum conditions will necessarily vary greatly according to the type of candy. This makes it advisable to check over closely all experience-reports on how various kinds of candy are handled.

With chocolates, for example, condensation generally causes graying and loss of sheen. But in regard to the temperature-humidity conditions maintained by various warehouses around the country to fight condensation, there doesn't seem to be much of a pattern.

Reports from one source indicate

that chocolate-covered creams, nuts, and fruits, chocolate bars, coconut candies, and cream mints (all with 5-7% moisture content) store best at 55% r.h.

In another instance, chocolate-covered cherries were stored at 68-70° F. initially in order to complete cordialization of the cherry center. In cases where cordialization is to be retarded, this can be effected with a temperature of 45° F.

Chocolates Shipped Frozen

The study made by the associations likewise turned up information from one warehouse where chocolates (cream centers, caramels, nut creams, etc.) were shipped as frozen food. Then, upon receipt by the consignee, the chocolate candies were either stored at 0° F. or, if for immediate use, gradually raised to 45° F. before removal. According to the foundation bulletin, no condensation was encountered and the candies carried well for as much as four months in refrigerated cases without deterioration.

In the report of a similar warehouse finding chocolates were tempered for three to five days at 55-60° F. before being placed on sale. Again quality retention proved satisfactory.

One candy warehouse recommended that chocolates be stored at 64-66° F. with a relative humidity not to exceed 60%, while another supplied data considerably different. The latter warehouse asserted that chocolates could be held initially at 32° F. and later raised to 45° F. Summer distribution, however, would call for a somewhat higher storage level (60-65° F.). Throughout its experience 50% r.h. was found satisfactory.

In the matter of storing solid chocolate, one well-known firm stated that 68° F. with 52% r.h. permits safe storage up to two years.

The only data on refrigerated nut candy storage included in the foundation commentary indicated that the shelf-life of peanut candy bars was prolonged five to eight times by lowering storage from 80° to 34° F. This was revealed in a progress report on candy research at the Georgia Agricultural Experiment Station.

Hard candy storage practices surveyed in the warehousing study provided a clear example of the importance of low humidity to the maintenance of quality. Experience has indicated that surface condensation causes this type of candy to clump and low temperatures have little effect on the ingredients.

This fact was graphically illustrated in the case of hard or semi-

hard candies (crystallized coconut squares or others without chocolate, nuts, or fruit). Temporary storage at temperatures as high as 140° F. caused no harm to the candy, yet high humidity, even for a short time, turned them white, produced stickiness, and loss of sheen. Continuation of this high humidity resulted in colors running together and a change in texture.

With other hard candies (stick candy, suckers, drops, peanut brittle, caramels, etc.) it was found necessary to keep humidity conditions down to 40% in order to prevent gain in weight, stickiness, blending of colors, and lumping.

Experiments with slightly moist candies (marshmallows, etc.) showed that they keep best at 65% r.h., regardless of temperature.

From the wide variations in the foregoing data the difficulty of arriving at any pat formula for candy storage can readily be seen.

As the foundation put it:

"Until such time as we have more extended and precise knowledge of requirements for best storage of specific candy types (as for instance, through research projects sponsored by the foundation and the National Confectioners' Association at the Georgia Agricultural Experiment Station), many warehousemen will be guided by the storage specifications desired by manufacturers whose candies they store. It seems desirable that these requirements should be set down in writing before the candy is accepted for storage."

Precautions In Handling

Foundation believes, however, that there are certain major precautions that those who handle candy can observe in order to hold adverse storage conditions to a minimum. Among them are:

1. Providing proper humidity.
2. Controlling condensation by room or product temperature tempering or by removal when weather is favorable (outside temperature within 10° of product temperature).
3. Packaging candies in vapor-proof material, well sealed, and using sturdy master cartons.
4. Maintaining as low a temperature as past experience with local atmospheric conditions permits. (It is safer, condensation-wise, to store at 60-65° F. than at 32-45° F.)
5. Instructing operating personnel that due to the inherent characteristics of candy and the lack of comprehensive storage data, it requires closer attention than other types of commodities.

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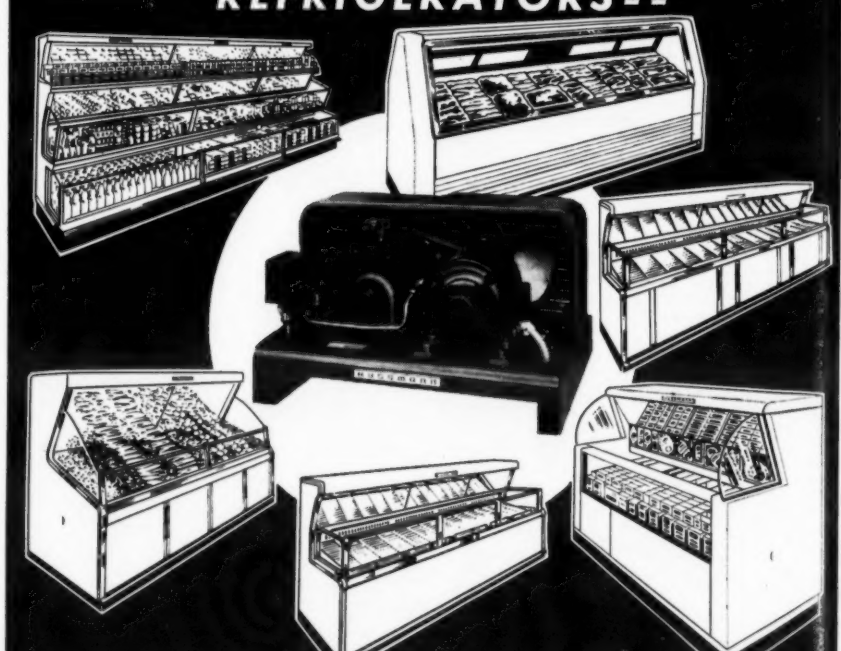
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Picture Article Shows How Electric Range Helps Mrs. H. Cook Full Meal In 30 Mins.

Points Up Fact That Unit Works as Fast as She Can

CONNELLSVILLE, Pa.—How an electric range, aided and abetted by a well planned electric kitchen, helps Mrs. Homemaker to cook a full meal in 30 minutes was the subject of an illustrated feature in a recent issue of *Homemaking Today*, which the West Penn Power Co. sends quarterly to its customers.

The article was intended to show how an electric range works as fast as the housekeeper can go in helping her to prepare her meals in the shortest possible time.

Process of preparing a 30-minute meal was pictured step by step. The script accompanying the pictures tells the complete story. Here it is:

EXACT TIMING REQUIRED

"Here's a situation that calls for split-second timing. Mrs. Homemaker arrives home at 5:30, slightly breathless from an afternoon's shopping—and hubby is going to like that spring bonnet much better if his dinner is on time.

"Mrs. H. stopped for a halibut steak at the market, and mentally planned dinner riding home on the bus. She's into her apron in a jiffy; decides to bake fish by the hot oven method; turns oven control to 550° F.

"She collects supplies from the refrigerator—frozen asparagus from the freezer compartment, cabbage from the vegetable crisper, milk, butter, and a jar of biscuit mix which she keeps on hand.

"She places fish in a shallow pan, covers it with salted milk (1 tbsp. salt to 1 cup milk) and allows it to stand while she prepares potatoes. She peels and dices them into saucepan, adding 1 tsp. salt and 2 tbsp. water.

PREPARING FISH FOR OVEN

"She covers saucepan, places it on 6-in. unit, turns switch to high. Now she takes fish from milk, dips it in fine bread or cracker crumbs, places it in shallow baking pan, and dots it generously with butter or margarine.

"Even in this short time the oven is ready and waiting—at 550° F.—so she pops the fish in. (This oven method eliminates fishy odor. Fish may be large steak or cut into serving pieces. Baking time—10 to 15 minutes.)

"Back at the work counter, she measures biscuit mix, adds milk and stirs briskly, then drops dough in small mounds on lightly greased cookie sheet. (Drop biscuits save time when minutes count.)

"The potatoes are steaming now, so she turns that switch to low, lifts lid and adds ¼ cup milk and 2 tbsp. butter, replacing lid. (No need to peek or stir, with the controlled heat of the electric range doing the job.)

AND NEXT THE BISCUITS

"Now she places biscuits in oven along with the fish, resets temperature control to 450° F. (She could set the minute minder for 12 min. so that the biscuits and fish would need no further thought until the bell rang.)

"The frozen asparagus goes into a saucepan with ½ cup hot water. She covers pan, puts it on the other 6-in. unit and turns switch to high. As soon as it is steaming freely, she'll break frozen block of asparagus apart with fork, turn switch to low.

"Now Mrs. H. finds a minute to prepare the grapefruit for broiling. She cuts it in half, cuts sections, removes center with kitchen shears, sprinkles each half with brown sugar or honey, and dots with butter, places it on a shallow pan ready for the broiler. Then she measures water and coffee into the automatic coffee maker and plugs it into the convenience outlet on the range.

FIXING THE SALAD

Next she cuts cabbage for slaw, adds dressing, and returns it to the refrigerator. Serving dishes and dinner plates she places in the warming drawer of the range so they won't chill the food. (If there's no one to help set the table, she puts china, glass, and silver on a tray to carry to the table. Saves time.)

"Now it's time for Mrs. Homemaker to fix the salad—the lettuce

was washed and placed in a refrigerator bag, so it's all ready to place on the plates and add the slaw. She uses a combination of French dressing and homemade cooked dressing which was also on hand in the refrigerator.

"6 p.m.—and dinner's ready on the dot! As Mrs. Homemaker dishes up she adds some chopped parsley to the cream potatoes, dresses up the fish with parsley and lemon, serves the asparagus with melted butter.

"She tucks the hot biscuits in a napkin, pours coffee, and serves triumphantly—but not flushed and flurried, as she might have been without the help of her electric range.

"The electric range works just as fast as she can, and its controlled heat and speed allow her to do many a time-saving meal, take many a short-cut to good cooking."

Dealers Tell Public How Home Laundry Job Can Be Push-Button Operation

ALBANY, N. Y.—The Capital District Appliance Dealers Association sponsored a Home Laundry Show recently on the street floor of the local power company building, featuring an exhibit of all makes of modern home laundry equipment.

The public was invited to see in operation new models of automatic washers, and clothes driers, as well as ironers.

Each day of the show, a home laundry specialist from one of the participating manufacturers held a clinic, giving short cuts, easier ways, and simpler methods of laundering with appliances.

Theme of the show was to emphasize how electrical helpers have changed the drudgery of the first-of-the-week-two-day chore of washing to a push-button operation—an effortless operation from hamper to bureau drawer in half a day, the association reported.

New Washer Market?

Oregon Store Saves Money, Many Man-Hours by Cleaning Root Vegetables in Second-Hand Machine

CHICAGO—Alert appliance dealers may be able to profit from the experiment of one supermarket operator who told the Super Market Institute at its annual meeting here how he used a conventional washing machine to wash root vegetables at a considerable saving in man-hours and money.

Here's how the idea was explained by L. P. Skelton, who operates the Pay'n Takit One-Stop Shop in Eugene, Ore.:

"We sell tons and tons of root vegetables—bulk or topped turnips, carrots, parsnips, and 'bagas. And as you know, it takes a lot of man hours to wash them, so that Mrs. Housewife will not have to labor in her kitchen to clean them.

"So we got another 'Red' Skelton idea. We borrowed a second-hand electric washing machine. It really worked wonders.

"You put 40 or 50 lbs. of root

vegetables in the machine and let it run 10 to 20 minutes, while the clerk can be doing something else. Turn off your washing machine, and you have root vegetables ready to put on display—and ready for Mrs. Housewife to practically put in her kettle.

"We liked the idea so well, we bought washing machines for both our produce departments. In using a washing machine, you must be sure to get the right kind of agitator that is not too rough.

"It would take one man two hours to wash the amount of vegetables the machine will wash in 30 minutes, and the man would not have them as clean.

"The wage rate for clerks in our territory is \$1.25 an hour. At an hour and a half work, we save \$1.87 on every 100 lbs. of root vegetables. Then you multiply that by the thousands of pounds of root vegetables we sell every month, it adds up."

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Air Conditioning Dealer 'Uses the User' by Selling Him Second Unit

YORK, Pa.—The A. C. Downes Co. here has been doing a good job selling the second unit to customers who already have one. They have found it much easier to secure the second sale than the first and also found that they have very little competition.

"People who are already using air conditioning know what it does for them and the points in its favor," relates co-partner John Musser. "Therefore, it is only necessary to know where they can install the second unit and the rest is up to them. So far, we have been successful in selling to over 60% of former customers and I feel that we can do much more."

Salesmen for the Downes company check on all the professional men using air conditioning units in their offices. This includes doctors, dentists, lawyers, insurance brokers, and bank executives. All types of businesses are checked to see if they have a unit.

If they have not, a salesman is assigned to try and sell one. But the main part of the promotion is to sell the second one. This can be done in many cases because units can be spotted on window sills. Telephone listings may advertise air conditioning in certain offices, and personal investigation uncovers others. In addition, the concern gets a list of all offices installing air conditioning. Then the prospect is followed up. The prospect is asked how the air

conditioning unit has worked for him in his place of business. Undoubtedly his answers are favorable. He is then approached with the idea of the same comfort and cleanliness in his home.

"Customers already having units in their places of business are completely sold on them and, in fact," states Musser, "many say they work overtime or come to work earlier in the day just to get into the air conditioned quarters. These points are brought out to the prospect for his home."

A customer with a unit is more than half sold already. The only item that remains is to convince him that it is just as important to the home or apartment. By visiting the home and talking with the wife or housekeeper, the idea will be furthered and the sale is well on its way.

"Professional men with air conditioning already in their offices are a good risk in installing a unit in their homes for a trial period," says Musser. "Once an installation is made the sale is almost closed."

The same sales points are made to businessmen with units in their places of business. Most businesses advertise their air conditioned premises, so the owner and even the employees are live prospects.

"The most difficult factor in making any sale is in showing the potential customer the use and need for the item being promoted," says Musser. "Since they are already using and enjoying air conditioning, this is already done and all you have to do is try and interest them in a second unit."

When one air conditioning unit is sold the customer is usually not contacted again. But the Downes concern has found the way paved for them in selling the second unit with no outside competition. Salesmen always pass up a prospect that already has a unit.

"Naturally our emphasis is on small units because these are the sales we make from leads by professional or businessmen," explains Musser. "But we also make sales in reverse. If we install a home unit, we then follow up with a possible office or business installation. One helps the other."

Simpson Becomes Head of Electric Assn. of Chicago

CHICAGO—Cliff Simpson has been named the new managing director of the Electric Association of Chicago, effective June 5, according to Axel Kahn, president of the association and district manager of General Electric Supply Co., here.

Simpson had been associated with the National Appliance and Radio Dealers Association as its managing director for the past four years.

The new Electric Association head succeeds Major Ainsley Gray who is retiring from active leadership after 20 years, Kahn said.

A spokesman for the National Appliance and Radio Dealers Association stated that the organization's board of directors will be in session here on June 25 and plans to consider naming Simpson's successor.

UL Group Discusses Changes To Conform With ASA-B9 Code

CHICAGO—Proposed changes in the standards of Underwriters Laboratories, Inc., for refrigeration and air conditioning equipment to conform with the requirements of the new ASA-B9 code, as well as other subjects were discussed in a two-day meeting between the UL staff and members of the UL Industry Advisory Conference for Refrigeration held at UL headquarters here.

As a result of deliberations between the UL engineers and the advisory conference members, the new standard, when prepared, will be submitted to the Electrical and Casualty Councils of UL for comment, after which it will be submitted to all listees in the refrigeration and air conditioning industry for their comments, it was announced.

This procedure, UL also explained, is "in keeping with our policy of having broad and full discussion of the requirements before adoption."

Industry Advisory Conference members attending the meeting included Byron Booher of Frigidaire; H. A. Brysselbout, York Corp.; J. A. Cochran, Crosley; P. H. Lawrenz, Nash-Kelvinator; D. W. Lynch (guest), General Electric Co.; W. M. Timmerman, G-E; and E. P. Wolfert, Seeger.

The UL engineers participating were headed by S. V. James, engineer, Casualty and Automotive Dept. Also considered and discussed were the following subjects:

- Copper tubing in refrigeration systems.
- Mechanical loading tests, window-type air conditioners.
- Use of flexible non-metallic tubing in refrigeration and air conditioning systems.
- Stripped condensing units.
- Wiring of large self-contained air conditioners.
- Wiring of commercial cabinets.
- Air conditioning blower motor overload protection.
- Auxiliary motor overload protection.
- Setting of pressure-limiting devices.
- Tests on large air conditioning equipment.
- Wiring and rating of room coolers.

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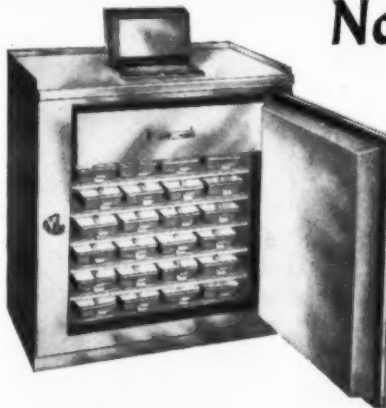
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Florida Commission Upheld by State Court In Its Right To Reject Offer of Lowest Bidder on Air Conditioning Job

TALLAHASSEE, Fla. — Circuit Court Judge Hugh Taylor ruled May 31 that the State Improvement Commission was within its rights in rejecting the lowest bid on air conditioning the Florida Supreme Court building.

The commission had awarded the contract to Falkner, Inc., Orlando, which bid \$42,430 on the job. Raymond Diehl, of Tallahassee, who bid \$38,700, sued on grounds his equipment would do the work as well as that to be installed by Falkner.

However, as one informed source here commented: "The Improvement Commission said the machinery Diehl proposed to install did not meet its specifications."

Meanwhile, Turner Butler, of Jacksonville, and Ford Thompson, Jr., of Tallahassee, representing the

State Improvement Commission, said they would not insist on surrender of a \$1,000 bond posted by Diehl to cover damages caused by delay in getting the cooling equipment installed. Falkner had been enjoined from beginning work pending the court's decision.

"Both sides agreed," it was stated, "that there is no law requiring the Commission to call for competitive bids on projects it handles, although Attorney Butler said he felt such a statute should be enacted by the 1951 Legislature."

John Ausley, representing Diehl, said, however, "since the commission had called for bids, it was obligated to accept the lowest offer submitted." Attorneys for the commission replied "the advertisement asking bids had reserved the right to reject any and all proposals." They further contended that Diehl had "placed himself under that con-

dition by entering a bid."

According to the Jacksonville *Times-Union*, the hearing was interrupted while lawyers went from county courthouse to the Capitol to ask the Cabinet if it had authorized the Improvement Commission to handle the air conditioning contract. The Cabinet's minutes confirmed that the Improvement Commission had authority to act.

"There being no statute or constitutional provision requiring this work to be done by a process of competitive bidding, I do not think the Improvement Commission has violated any law of the state in making an award to one other than the lowest bidder," Judge Taylor said in his ruling.

"The soundness of the policy evinced thereby is not a matter for the court to pass upon where the highest officials of another department are involved," he added.

American Refrigeration Set To Occupy New Plant Structure Aug. 1

MINNEAPOLIS — A new plant structure, planned as the first of several units, is being erected on Excelsior Blvd. here by American Refrigeration Corp., reports R. W. Dreher, president.

The building, which will provide 20,000 sq. ft. of plant area, should be ready for occupancy about Aug. 1, Dreher said. Work area will all be on one floor, to provide efficient handling of material, aimed at lowering production costs.

Building will be of heavy industrial construction designed to hold presses and steel stock. The location provides truckage, and is near bus lines.

The company which makes home and farm freezers and a variety of commercial refrigerator products, has recently added 4 and 6-ft. dairy cases, and new bottle coolers with hard rubber slide-away doors and pull-out compressors.

Air Conditioning Planned For Science Building At Arizona State

TEMPE, Ariz. — Arizona State college here recently contracted for the installation of a refrigerated air conditioning system in its newly-constructed science building. It will be the school's first such installation.

The system will include two Worthington 6HF4 "Freon" compressor units, two Worthington-Acme 20-in. by 7-ft. water coolers, a Worthington 3DE-8-7½-hp. Monobloc pump, and a Worthington 8QF-6 vertical turbine pump.

The architects and engineers are Lescher & Mahoney. Frank Harmonson Co., Phoenix, is the distributor.

Fidelco, Inc. Issues Catalog

NEW YORK CITY—Fidelco, Inc., 207 E. 37th St. here, has announced its first complete refrigeration and equipment catalog. The book, which equipment catalog.

Air Cooling Moves Outdoor Services Inside

DALLAS — Because it is much cooler inside an air conditioned church than it is in the outside summer weather, "open air" Sunday night services, which have been conducted by eight cooperating east Dallas churches since 1918, will be moved indoors this summer, according to the Rev. Martin P. Kniker, committee chairman in charge of the services.

Ideal Cooler Corp. Releases New Catalog

ST. LOUIS — Ideal Cooler Corp., here, manufacturer of bottled beverage and draft beer coolers, has just released its new catalog which features several new models with advanced design details.

Among the new Ideal models is an 8-ft. dry beverage cooler that holds a full 56 cases of 12-oz. beverages. This model has the "Arctic Fin" evaporator which requires no blower or fan.

Other additions to the Ideal line include a draft beer cooler which also contains the "Arctic Fin" cooler. This model has direct draw refrigerated faucets for instantaneous service. It also comes with a built-on refrigerator large enough to serve 4 cases of 12-oz. beverages or to store and chill glasses and ice cubes and food.

The new Ideal catalog is available by writing to the manufacturer on company letterhead.

Air Conditioning Included In Plans for Big New Miami Hotel

MIAMI, Fla.—Ground has been broken for the new 10-story, 200-room Biscayne hotel at Biscayne Blvd. and NE Fourth St. The hotel, to be completely air conditioned, is being erected by Martin Morganstern and Irving Kipnis. They estimated the cost of the hotel with furnishings at more than \$2,000,000.



SUMMERTIME IS QUITTING TIME*
FOR OLD CONDENSING UNITS.

***TIME TO REPLACE WITH
SERVEL SUPERMETRICS**



- FIVE-YEAR PROTECTION PLAN (FRACTIONAL HP MODELS)
- HIGH-TORQUE REFRIGERANT-COOLED MOTORS
- SEALED AGAINST MOISTURE AND DIRT
- COMPACT LIGHTWEIGHT
- FORCED-FEED LUBRICATION

There are real profit dollars waiting for servicemen and dealers who go after the replacement compressor business today. Thousands of worn-out units will be "quitting" with the arrival of hot and humid summer weather.

Start now to get your full share of this lucrative market. When customers need a replacement . . . specify Servel Supermetic. Tell them about the condensing unit with the Five-Year Protection Plan.

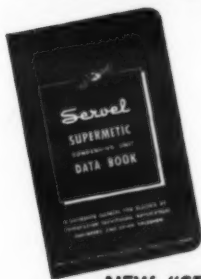
Study the Supermetic pictured at left. It's one of a series of Supermetic models, available in all sizes from ¼ through 3 HP. Sturdily built . . . designed to fit any refrigeration requirement . . . protected by a super-tough bronze finish that resists corrosion and rust.

SUPERMETICS ARE AVAILABLE EVERYWHERE

from conveniently located wholesale distributors



Send for these Supermetic SUMMER SALES HELPS



NEW Supermetic DATA BOOK

NOW—a new ready reference manual, . . . prepared especially for Electric Refrigeration Service Engineers, Application Engineers and Retail Salesmen . . . 28 pages, chock-full of data on the new "greatest of them all" Servel Supermetic Condensing Units.

NEW "SERVEL SUPERMETIC SALES KIT"

To help you sell Supermetic Condensing Units, a special Supermetic Sales Kit . . . includes complete information on the new Servel Supermetic Line, the sensational Five-Year Protection Plan and samples of helpful sales materials. Send for them today.

Servel, Inc., Electric Refrigeration Division, Dept. A-62, Evansville 20, Ind.

There's an Authorized Servel Distributor near you who carries a complete stock of Supermetics and genuine Servel parts. They are ready to give you fast reliable service on any requirement. Write for the address of your nearest wholesale distributor.

Check these prospects for summer sales:

- | | | |
|-----------------|---------------|----------------------|
| 1. Food Markets | 5. Drugstores | 9. Drive-ins |
| 2. Restaurants | 6. Dairies | 10. Meat Markets |
| 3. Bakeries | 7. Florists | 11. Ice-Cream Bars |
| 4. Taverns | 8. Hospitals | 12. Locker Operators |

Servel

S U P E R M E T I C

Models for every electric refrigeration and air conditioning use . . . ¼ to 5 H.P.

Serving THE REFRIGERATION INDUSTRY Since 1919

Specify Acme For Top Performance

FREON SHELL AND TUBE CONDENSERS
DRY-EX WATER CHILLERS
HI-PEAK WATER COOLERS
FREON SHELL AND COIL CONDENSERS
HEAT EXCHANGERS OIL SEPARATORS
INDUCED DRAFT COOLING TOWERS*
EVAPORATIVE CONDENSERS
LIQUID RECEIVERS
BLO-COLD INDUSTRIAL UNIT COOLERS
PIPE AND FIN COILS
AMMONIA CONDENSERS

* New Acme product with outstanding features. Write for Catalog No. 40.

ACME INDUSTRIES Inc.
JACKSON • MICHIGAN

Every American Family...
NEEDS A SECOND, SMALLER REFRIGERATOR
FOR THE HOME • OFFICE • COTTAGE • BOAT •
RECREATION ROOM • SMALL APARTMENT, ETC.

**A WIDE OPEN MARKET
FOR DEALER PROFITS!**

MARVEL Specialized REFRIGERATOR
WILL MEET THIS CONSUMER DEMAND 100%

You can make extra profits when you add the MARVEL 400 to your present lines. There's a bigger market than you may realize for a really good 4-foot unit.

Requires only 23" x 20" floor space. Door opens full 90° even when unit is smack against the wall. Requires no side or back ventilation. Tecumseh hermetically sealed compressor. Underwriters approved!

Needed by doctors for refrigerating penicillin, sulfa, etc. Make multiple sales to apartment houses—both original equipment and replacements—cottages, resorts, etc.

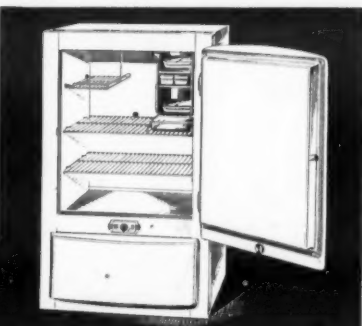
The ideal second refrigerator for the home—recreation room, shop, home bar.

Write FOR DEALER LITERATURE!

MARVEL INDUSTRIES, Inc.
Sturgis, Mich.

**The Result of 13 Years of
Refrigeration Engineering**

Marvel has built small, specialized refrigerators since 1937. Superb production facilities in our new, modern plant at Sturgis, designed and built exclusively for refrigerator manufacture. Every unit individually tested. Performance guaranteed.



**1,226 Refrigerators Sold
In Nashville During March**

NASHVILLE, Tenn.—A big splurge in refrigerator and range sales was enjoyed by Nashville dealers during April, the Nashville Electric Service noted in its monthly report of sales on four major appliances.

Refrigerator sales, with 1,226 sold during the month, were 35% ahead of April, 1949, and 39% ahead of March, 1950. Range sales of 666 units were 31% ahead of a year ago and 13% up on March, the report indicated.

The other two appliances listed did not fare so well, however. Water heaters, 533 sold, were 12% ahead of March but 7% below that of April, 1949.

Home freezer sales of 23 units were 8% behind a year ago and 14% under March.

**Commercial, Air Conditioning
Show Draws 300 to Parts Firm**

HARRISBURG, Pa.—Refrigeration Supply Co., refrigeration and air conditioning parts wholesaler here, recently attracted more than 300 dealers to its first pre-season showing of air conditioning, ventilating, and commercial refrigeration equipment, Russell D. Jones, owner, has announced.

Manufacturers' representatives manned the displays and discussed the new products with dealers.

Jones considered the showing to be a success and announced his intention to hold a similar showing every year.

**Use of Ads In New Admiral
Magazine To Tie In With
Dealer Promotional Effort**

CHICAGO — The first issue of Admiral Corp.'s new promotional magazine, "America's Smart Set"—is now off the press and being introduced to the company's dealers by distributor salesmen, Seymour Mintz, director of advertising for Admiral, said recently.

The 24-page newsmagazine-size book offers a varied selection of material for its readers, who come from mailing lists provided by dealers. Front cover features Estelle Loring, formerly of the Admiral sponsored "Stop the Music" telecast, with the inside cover devoted to a standard television advertisement.

Lead-off article is a behind-the-scenes illustrated piece on the television show which in turn is followed by an events calendar at vacation spots throughout the nation for July and August.

This is followed by a homemaking section devoted to profusely illustrated articles on kitchen arrangement, hot weather recipes, and interior decoration for the budget-minded.

The usefulness of modern refrigerators is the subject of a following story, the book closing with motion picture reviews and comments on current musical recordings and telecasts.

Inside back cover is used for an Admiral refrigerator advertisement, while the back cover itself contains a local dealer advertisement.

As a sales aid in promoting the magazine, distributor salesmen have been equipped with a kit of literature. This consists of an advertising portfolio containing 16 different advertisements which dealers can select for back cover use for their own customers, a sales guide and an illustrated folder.

The sales guide, for distributor salesmen, re-emphasizes the points of the folder, and is designed to help the salesmen sell the book to the dealer.

Print order for the first issue will run well over a million copies, Mintz said. Six issues a year will be produced by the Drake Publishing Co. of Chicago.

Twin Cover-Girls--Twin Unit



The "Twin" theme is prominent on the cover of Bastian-Blessing's new 12-page catalog which contains data on installation of "Twin-Serv" creamer units.

**Bastian-Blessing Issues
Catalog on 'Twin-Serv'**

CHICAGO — The Bastian-Blessing Co. announces the issuance of a new 12-page, 4-color catalog, which illustrates and describes its new Twin-Serv creamer units.

The catalog contains nine illustrations of actual installations of Twin-Serv soda fountains, three of which show the color schemes of the fountains and of the modern stores in which they are installed.

Illustrations of all three Twin-Serv models—the 30-gal., 40-gal., and 50-gal. ice cream capacity units—are included, and views of various working parts are shown.

Some of them are patented features which are exclusive to Bastian-Blessing fountains. Measurements and other pertinent information, which would be needed by a fountain operator who contemplates installation of new equipment, also are given.

A copy of this catalog will be sent free upon request by The Bastian-Blessing Co., publicity department, 4201 W. Peterson Ave., Chicago 30.

SHE LOVES HER SMART NEW REFRIGERATOR...



**She'll love the year-in, year-out dependability
of its TECUMSEH Hermetic unit**

Yes, she finds it easy to love the smart new refrigerator that has just entered her home. She loves it for its beauty, for its modern up-to-the-minute conveniences, its smooth, vibrationless operation.

But the nice thing about it is that she'll love it more and more as the years go by. For, long after it has lost its "brand newness", she will be loving it for the faithful service it has given through the years—thanks to the precision-built Tecumseh Hermetic Unit with which it is equipped.

For Tecumseh Hermetic compressors are famous the world over for their long-lasting, trouble-free performance, their low

operating cost. Here are just a few of the many reasons for their superiority:

Large, oversize bearings; counterweighted crank-shafts; super-finished bearing parts ($\pm .0001$ "); Chieftainized connecting rods and pistons; simple and positive motor controls; leakproof motor terminals.

Many models include both fan-cooled and static condenser type units. In various combinations of compressors, motors and condensers, they cover the entire range of applications from $1/8$ h.p. to $3/4$ h.p.

Write for complete information.



TECUMSEH PRODUCTS COMPANY
TECUMSEH, MICHIGAN

EXPORT DEPARTMENT: 2111 WOODWARD AVE., DETROIT 1, MICH.

World's largest independent producer of compressors and condensing units for the refrigeration industry.

**PAGE
after**

PAGE tells this story

Want to save time, trouble, and profit-eating call-backs on your refrigeration control replacements? Then make the Cutler-Hammer refrigeration control catalog your standard guide on replacements. Here you will find "specific-fit" units which are not merely listed but already manufactured by Cutler-Hammer for more than 1,000 individual refrigerator models which the industry has produced since 1925. No "modifying", no fussing, no compromises, when you put in C-H "specific-fit" replacement control units. And you'll also quickly see how the widely-known Cutler-Hammer name

(advertised in The Saturday Evening Post, Time, Newsweek, American Home, Better Homes & Gardens, House & Garden, etc.) builds customer confidence and good will. The C-H refrigeration control catalog, as well as the items you need, are available through your authorized C-H refrigeration wholesaler. Do not forget, this C-H refrigeration control line includes the outstanding general purpose replacement control (9521N9) for use with motors having "built-in" overload protection. CUTLER-HAMMER, Inc., 1362 St. Paul Avenue, Milwaukee 1, Wisconsin.

You know you're right when you use C-H "specific-fit" controls



Featured by Cutler-Hammer refrigeration wholesalers and recommended by alert service dealers from coast to coast.

Distributor Offers Cokes To Promote Refrigerators

NEW YORK CITY—"The pause that refreshes" will be the pause that opens the door to at least 168,000 local demonstrations of International Harvester refrigerators in the 13 weeks beginning June 5.

That many bottles of Coca-Cola have been ordered by Bruno-New York, I-H distributor in this area. They will be given to dealers participating in a refrigerator promotion.

The dealers will offer the cokes free to the public. Those who accept will be guided to an I-H refrigerator and told to use the box's built-in bottle opener. And the demonstration will be on.

The offer will be publicized through about 30 daily spot announcements on radio station WNEW, cooperative advertisements, window streamers, and product banners. Dealers become eligible to participate in the stunt by purchasing one each of three I-H models, priced at \$214.95, \$299.95, and \$399.95.

In return, they get a minimum of 624 bottles of Coca-Cola at the rate of two cases of 48 bottles a week, the streamers and banners, and listing in the distributor advertisements—all without charge.

(Another Bruno-New York promotion indicates that the firm is impartial in the matter of soft-drink brands. A new three-dimensional I-H refrigerator display being erected on top of the Howard Johnston building at 49th St. and Broadway includes an 8-ft. bottle of Pepsi-Cola.)

Admiral Underwrites TV Trade-Ins on 19-In. Model

NEW YORK CITY—Admiral Corp. announced recently that it will help its dealers to offer a \$100 allowance on used 7 and 10-in. tube television sets to consumers who purchase any model in its 19-in. tube line.

It was the first move by a major television producer to underwrite retail trade-ins. Admiral said the policy was adopted "to educate people to purchase larger screen sets."

Under the policy, the company will grant to cooperating dealers special discounts on new purchases of 19-in. tube sets, all of which are console models. This line is priced from \$495 to \$775.

G-E Supply To Distribute Some Universal Products

NEW YORK CITY—General Electric Supply Corp. here recently became the ninth distributor in New York of Landers, Fray & Clark's Universal line of electric housewares and electric blankets.

The appointment reportedly caused consternation among some New York distributors of the Universal line, apparently in view of the fact that General Electric Co. recently cancelled its distributor agreements with G-E Supply on nine electric housewares. The cancellation followed charges in court that the wholly-owned G-E subsidiary had been cutting the fair-trade prices on G-E products.

Drugstore Gets Air Cooling

NEW ORLEANS—Construction work will begin soon on an ultra-modern, completely air conditioned drugstore and apartment building at 3400 Canal St., according to M. D. Albert. Albert said the building will cost around \$60,000.

TYPHOON

Most Complete Line of
AIR CONDITIONERS
in the most popular size range
1½ TO 20 TONS

Evaporative Condensers
3 TO 20 TONS

Backed by more than 40 years
of air cooling experience

TYPHOON Air Conditioning Co., Inc.
794 Union Street, Brooklyn, N. Y.

Dolls and Sand Shovels Help Boost Appliance Sales As Toy Department Ups Traffic In West Coast Store

RIVERSIDE, Calif.—What is the best sideline the present-day appliance retailer can use to maintain store traffic?

The answer to that question, after a long study and practical experiment with many sidelines, is the toy department, according to I. T. Olsan, head of Olsan Appliance Co. here.

Olsan, who recently completed a \$20,000 showroom, has "tried them all" in the form of housewares, hardware, plumbing supplies, furniture, etc., in addition to his basic Admiral and Crosley appliance lines. In the course of his testing, he installed a complete toy department for year-round operation, and kept a close check on figures. Results have been consistently good after two years, according to Olsan.

"In every way, the toy department has proved to be the most effective traffic-builder in the store, the most consistent source of worthwhile new prospects, and the easiest of all sideline departments to operate," he indicated.

"There are five periods during the year when the toy department is extremely profitable, and in between, we find that it invariably attracts from 25 to 30 customers per day into the store—at least three fourths of whom we could not depend upon to be attracted by ordinary means.

"Mothers with young children are obviously housewives and family-type customers, and therefore, we utilize the toy department not only for its own direct profit, but because it gives us an opportunity to demonstrate our appliance lines to housewives. Many of our largest appliance sales have been based simply on contacts with women who came in to buy a

doll, a sand shovel, or water toys for their children."

A feature of the California dealer's showroom are 140 double electrical outlets in the floor, lower baseboard, wall molding, and various frames through the building. This makes it possible to operate every appliance shown on the floor. Thus, it is a simple matter to show a refrigerator, washing machine, or small appliance in operation within a few second's time after a toy purchaser has made her selection.

Gibson Appoints Distributor

SAN FRANCISCO—Appointment of J. J. Lukanish Co. here as northern California distributor for Gibson refrigerators, ranges, and home freezers has been announced by Bill Denison, western division manager of Gibson Refrigerator Co.

Sweden Freezer Names Northern California Distributor for Its Line

SEATTLE—The Distributing Co. of California, Inc. has been named distributors of Sweden speed freezers for northern California and western Nevada by the Sweden Freezer Mfg. Co., here, maker of soft ice cream freezing and dispensing equipment.

Although this firm was only recently organized to handle the sale of Sweden freezers and other electrical and refrigerative equipment, William Black, president of the company, has had wide appliance and freezer experience, with active sales work in northern California for the past 10 years. He is presently setting up dealers in this territory to handle the Sweden line.

The office, warehouse, and showroom for displaying Sweden freezers is located at 800 Bay St. in San Francisco.



SELL THE LEADER... SELL WESTINGHOUSE!

Deluxe Water Cooler BUILT RIGHT...PRICED RIGHT ...Amazingly Free From Service!



... of course, it's Electric!

With the Westinghouse Foot-Pedal Control you're never frustrated by situations like this. No hands... just step on the pedal to get a drink of refreshing cool water.



With the Westinghouse Stainless Steel Top there's no chippage problem. It's sanitary... easy to clean... and beautiful.



With the Westinghouse Stream-Height Regulator this can't happen... you always get a drink, never a squirt or a drip.

When you want a drink, you want a drink and not the frustration of getting rid of packages first. With the Westinghouse Foot-Pedal Control your arms may be full, but use your foot... just step on the pedal and drink refreshed. That's another reason why everyone likes Westinghouse Water Coolers.

In addition, they like the Automatic Stream-Height Regulator, the Stainless Steel Top, the Anti-Squirt Bubbler and a Push Button Bubbler Kit*. Only Westinghouse has them all... PLUS a 5-year Guarantee Plan. So it's *Sell Westinghouse! Sell the Leader!* Nine models, including 2 Compartment-Type Coolers... a capacity and type for every need.

*Available at slight additional cost

WESTINGHOUSE ELECTRIC CORPORATION
Appliance Division • Springfield 2, Mass.

YOU CAN BE SURE...IF IT'S Westinghouse

For further information call your Westinghouse Distributor or mail this coupon.

Name _____
Street _____
City _____
State _____

SACRN

EXPERIENCED SALESMEN: Sargent Says They May Not Be as Productive as Well Trained Rookies

NASHVILLE, Tenn.—"Experience" may be a negative factor in specialty salesmen today—the inexperienced don't-know-it-can't-be-done type probably being the better bet, if he has had the right training, particularly on product demonstration.

So stated R. J. Sargent, manager of the Westinghouse laundry equipment department, in speaking to the Nashville Electrical Dealers Association.

"Actually there are two types of salesmen. The first type is the old timer who has had years of experience, and the other type is the young man fresh out of school who doesn't know it can't be done," Sargent explained.

"About a year and a half ago I was in Indianapolis talking with an old friend who I have known for many years. As I walked into his place of business I noticed that he still had the same sales organization that he had before the war.

"I hadn't seen these men for eight

or nine years but I was able to call most of them by name, and I made the comment to the buyer of the department that it surely was wonderful to see that he had been able to hold together his organization, for as I had known them, they were the top ranking selling crew in the town.

"He said, 'Dick, I know just what you mean but I may have to fire the whole d... bunch.'

"Naturally I was curious to get his reasoning, and he pointed out to me that these men used to be world beaters, but the period after the war had made them lazy.

"No longer did they make night calls to sell merchandise in the home. No longer on their days off the floor did they call on prospects. No longer did they attempt to develop a sale on a washer or vacuum cleaner because they were afraid the next person who walked in would want one of those hard-to-get refrigerators.

"He went on and on and, try as he might, he couldn't swing the old

men back into good selling habits. Then he pointed out two young men who were demonstrating vacuum cleaners. Both were new to the organization.

"One had sold seven cleaners and the other five the previous week. These two men were learning specially selling the right way and refused to believe it couldn't be done.

"My reason for telling you this story is to point up that it isn't always the old timer you have to have to sell merchandise. Remember there are young men reaching working age each day in your city. Hire some of these men and mold into them the right way to sell.

SOURCES OF NEW MEN

"Now your question may be 'How do I get them?' One source is advertising whereby you offer a future for young men by an intensive training program, along with an opportunity to take home a worthwhile commission check.

"Other sources are principals of schools, the Y.M.C.A.; ministers of churches often want to help some member of their congregations.

"One of the best salesmen I ever knew ran an elevator in a building until one day a smart dealer saw that the boy had a swell personality and offered him a chance for a good living, selling appliances. The sources are unlimited if you will use your imagination.

"Now what are you going to do after you hire the prospective salesman? Remember he isn't a salesman until you have trained him and he has made some sales and taken home some commissions. So I come to my second point: Train that organization to sell the right way.

"What do I mean by the right way? Well, again I'm going to use a personal experience.

"In 1931 I came out of school and needed a job. It was right in the heart of the depression and jobs were not very easy to obtain.

LOOKING FOR A JOB

"In an attempt to sift over the industries that offered a future the appliance industry looked best, plus the fact that I had learned something about the washing machine business through driving a truck in the summer for a lumber company who sold appliances. They paid a few bucks for prospects I developed and so I sold a few washers.

"I went in to see a certain department store and told the buyer I wanted a job selling washers. He hired me on a straight commission, gave me an order pad, a few pictures of the washers they sold; told me to study the literature and assigned me to the worst possible district in the city.

"Then, with the word from him that I would get no floor time until I had proven I could sell, he sent me on my way with his blessings. Brother, what a training program!

"As I started up the street in my territory I prayed that no one would answer the doorbell when I rang it. Finally though, some woman caught me and I explained who I was and what I was selling. She wasn't interested in a new washer but was thinking of a used machine.

"Now the fun began. The store had some used machines and one of the makes had a tub within a tub. After washing you stepped on a pedal and the inside tub raised up and started to spin to extract the water.

"Fine, except nobody told me what to expect. The machine was sent out to wash were diapers; bushels of them! So the machine was loaded and after washing a certain length of time I stepped on the pedal.

"You never heard such yelling in your life. All those bloomin' diapers were on one side of the basket and first the machine would run towards me and then towards the lady of the house. Finally, with great presence of mind I pulled the cord.

"Gentlemen, that is the first sale I never made.

"What I have just said is how not to start a salesman to work for you. No salesman should be allowed to attempt a sale until he has received

a thorough training on your products and understands good selling procedures. If this is not done he will be ruined from the start and also will kill some sales for you.

GIVE HIM PRODUCT STORY

"Basically you should start out by giving him, with the aid of your distributor, a real product story. Not only to teach him the essential features of the product but have him use the product to understand its advantages and so he can talk the woman's language.

"How in the name of heaven can a salesman speak with authority about a stove until he has baked and broiled in the oven and cooked some meals on the surface units?

"Is that being a sissy? Hell no; it's giving him the right knowledge and with it the confidence that what he says to a prospect is true because he did it himself.

"Is there anything better than a salesman who speaks from experience? His words carry a ring of truth and authority. Can you imagine anything worse than a laundry equipment salesman who never washed or dried a load of clothes?

"How can he say that they come out of the washer sparkling clean or that the towels come from the drier fluffy and thirsty for water unless he has actually washed and dried clothes. I don't mean one load, but lots of loads so that he can talk about everyday cottons and linens as well as the fancy curtains, bed covers, nylons, and all the rest.

"You are familiar with the three-step, five-step, ten-step, etc., selling plans and they may have some merit but not for the new salesman. Let's take this man and teach him how to make a demonstration. Remember, a good product will sell itself and it saves a lot of talk on the part of the salesman.

"Your responsibility rests then in providing this new salesman with the right to make home demonstrations as well as live demonstrations on your showroom floor.

"As stated before, a demonstration lets the product sell itself and as proof let's go back to pre-war and see how successful dealers made their salesmen click.

"In the depression one large manufacturer of washers was outselling all other brands in total units and dollars, and yet he had the highest priced washer on the market.

"When the rest of us were selling

(Concluded on next page)

Selling your refrigerator prospects for you!

Inland's "Magic Touch" ice tray advertising builds your refrigerator sales and your profits in your store!



Who reads *The Saturday Evening Post* and *Better Homes and Gardens*? And where? The best people... the best customers... the best prospects. And in your territory... your town... your neighborhood. And so... Inland "Magic Touch" Ice Tray advertising in those magazines helps you close refrigerator sales in your store... builds business, increases sales, pays you bigger profits!

Advertisements like the one shown here are appearing now. They'll continue to appear throughout the best refrigerator sales months. Cash in on

them. Feature Inland "Magic Touch" Ice Cube Trays. Demonstrate the new and amazing convenience of the "Rock-Out" feature. You'll sell more refrigerators.

Make replacement sales and profits too... by selling "Magic Touch" Trays to replace worn, outmoded inconvenient trays. Order an ample replacement stock from your refrigerator manufacturer or distributor... to make quick deliveries and profits.

New refrigerators fully equipped with Inland "Magic Touch" Ice Trays give your customers complete ice convenience

"Magic Touch" Ice Cube Trays

by INLAND MANUFACTURING

INLAND MANUFACTURING DIV., General Motors Corporation, Dayton, Ohio



Bent Hur Dealers
White Freezer Sales History

BEN-HUR

"America's Finest"

FARM AND HOME FREEZER

Dealer Sales and Factory production records prove BEN-HUR "America's Finest," and fastest moving freezer.

And no wonder! With all of the plus values BEN-HUR offers... three classic modern models with Ben-Hur Blue Color Trim to suit every demand... separate freezing compartment... sturdy construction for a lifetime of satisfaction... all-around insulation that cuts operating cost, improves performance... and all of the exclusive BEN-HUR features for safety, economy, convenience... it's no wonder BEN-HUR is setting the pace in the freezer industry. Make it your business to make BEN-HUR your business. Write today for full details and information about a BEN-HUR franchise.

BEN-HUR MFG. CO., Dept AC
634 E. Keefe Avenue, Milwaukee 12, Wisconsin

BEN-HUR FARM and HOME FREEZERS



See the Deluxe models in 9.2, 12.5, and 18.5 cubic foot sizes.

Healthful Living
Through
Frozen Foods

Product Knowledge and Demonstrations Described as Still Necessary In Selling

(Concluded from preceding page)

\$39.95, \$49.95, and \$59.95 washers have caused a sensation in the industry when he brought out a \$69.95 washer as his lowest priced machine. Sure their products were good and well accepted but it was their basic sales plan that did the job.

"This plan was so simple that all in the world they did was to get dealers to load three or four washers in a truck and leave them at some prospect's house for a demonstration.

"Yes, it didn't even have to be a prospect. Just someone who would try the washer. A week or so later the salesman came back and closed the sale.

"Look! that isn't nuts today! Are we so good and so smart we don't have to do it anymore? Not by a darn sight."

DRAMATIC SKITS CAN BE HELPFUL

"I remember another dealer who trained two of his salesmen to put on a skit. One played the part of Mrs. Drudge with an old fashioned cook stove and the other Mrs. Modern with a new electric stove.

"They got 10 to 12 couples together in the evening, at the store, and cooked a delightful meal and after dinner put on the skit. Are we so blamed sophisticated today that we can't do this anymore?

"Years ago I traveled for a distributor and every single one of my dealers had their appliances hooked up and were making demonstrations. Does your distributor insist on this and is your distributor representative willing to take off his coat and help this new retail salesman with a demonstration?

FOOD IN THE REFRIGERATOR?

"One more example. Let's take a refrigerator. To the prospect they may all look alike but to bring features to life you must demonstrate. Every refrigerator on the market has a storage place for vegetables and fruits.

"Isn't it easier to put some fruit and vegetables in the storage compartment and then instead of describing how fresh the celery will keep you can take a hunk of celery and by breaking it show how crisp and fresh it is.

"Words can't tell that story. Meat in the meat compartment, ice in the trays, real honest frozen foods in the refrigerator. Gentlemen, if you are going to train the new salesman, train him to do a proper demonstration.

HELP NEW SALESMEN

"In order to make this demonstration program get started right it is essential that you gentlemen take off your coats and help your new retail salesman make some demonstrations and close some sales. The best way to teach is by showing. So brush up yourself and get your man started off on the right foot.

"The third point I made was to pay that organization on an incentive basis. A salesman who is not working for a commission is a man without an incentive. The smell of an extra dollar acts as a terrific stimulant.

"You like that odor, so does any man. It isn't of great importance how you arrive at an incentive as long as you pay something for demonstrations. Suppose it's only two bucks and then a bonus for sales.

MAKE THEM COOK AND WASH

"Many of you dealers came into this business since the war. Times have been good, with selling on the easy side. You all have made profits, but not all of you have milked the last sale out of each working day.

"Take the merchandise that is in free supply. Concentrate on selling it by building a fresh selling organization.

"Then teach your men the features of your merchandise and make them cook and wash, etc. They will speak with authority.

"Establish demonstrations as your basic sales plan. Then take your coat off and teach the new salesman by actually showing him how to make a demonstration and close a sale.

"All of this tied to a real incentive plan will make the wheels run smooth and your sales and profits the best in your history."

Olson New President of Electric Machinery Mfg.

MINNEAPOLIS—R. H. Olson, formerly vice president in charge of sales of Electric Machinery Mfg. Co. here, was recently elected president of the company.

He succeeds W. H. Feldmann who joined the Worthington Pump & Machinery Corp. as vice president in charge of sales. Electric Machinery is a subsidiary of Worthington.

A. P. Burris, formerly manager of the New York sales district was elected vice president in charge of sales for Electric Machinery to succeed Olson. P. L. Shawley, of the New York office, has been appointed New York district sales manager.

Name Bourne Seeger Div. Material Control Manager

ST. PAUL, Minn.—Philip Bourne has been appointed manager of material control of the St. Paul division of the Seeger Refrigerator Co., John W. Seeger, vice president and general manager, announced recently.

He succeeds George W. Hamilton, who will become division sales manager. Frank Knight will continue as purchasing agent for the Seeger company.

Mills Revises Chart on Its Full Condensing Unit Line

CHICAGO—A revised eight-page chart 204-5 illustrating and describing the complete line of Mills compressors and condensing units is now available from Mills Industries, Inc., 4100 Fullerton Ave., here.

Up-to-date specifications, capacities, and essential data are included on air-cooled ¼-hp. to 3-hp., water-cooled ½-hp. to 10-hp., and combination air-and-water-cooled units of ½-hp. to 3-hp.

Kelvinator Ads, TV Show Used To Plug Ice Cream

DETROIT—Kelvinator is using trade and consumer advertising plus television to promote ice cream sales during "June Dairy Month," according to H. C. Patterson, Kelvinator commercial sales manager. The company is one of the major producers of ice cream cabinets.

Trade advertisements in the principal ice cream cabinet trade magazines for the month of June feature a photograph of Louise Leslie, home economist star of Kelvinator's afternoon TV show, "Homemaker's Exchange," over the CBS network five days a week.

Catalog Shows Scope of Sweden's Freezer Line

SEATTLE—Ice cream freezing and dispensing equipment is the subject matter of a new eight-page, two-color catalog recently issued by the Sweden Freezer Mfg. Co., here to give a comprehensive picture of the scope of the Sweden line of batch and continuous freezers.

Emphasis is on soft ice cream freezing and dispensing, with a page devoted to a discussion of food costs in the various methods of dispensing ice cream; however, the catalog also shows the company's line of combination hardening-dispensing cabinets. The various models are illustrated by photographs of the machines with complete specifications.

Death Takes Hoffman, 59, Weber Purchases Director

LOS ANGELES—Joseph P. Hoffman, 59 years old, director of purchases of the Weber Showcase & Fixture Co., here died suddenly May 24.

He had been employed at Weber more than 31 years starting as an accountant in the cost and payroll department. He had held the position of director of purchases for the past 15 years.

WE DARE THEM ALL

to Compare Price

STANDARD ELECTRIC PRICES ARE LOWER--STANDARD ELECTRIC QUALITY IS HIGHER

Make A	\$111.00	Make E	\$110.00	Make J	\$149.50
B	106.00	F	137.50	L	94.50
C	109.50	G	160.50	P	93.50
D	101.00	I	197.00	S	115.00
				W	186.22

STANDARD ELECTRIC'S list price on a 30" fan only \$79

to Compare Quality

STANDARD ELECTRIC QUALITY IS HIGHER
STANDARD ELECTRIC PRICES ARE LOWER

Compare Standard Electric fans with the highest priced on the market and you will agree that feature for feature Standard Electric belt drive fans are better made, more efficient, and longer lasting.

1. General Electric motors.
2. Choice of Randall or SKF ball bearings.
3. Wider, stronger, fan blades.
4. Beautiful Hammertone finish.
5. Heavy one-piece Venturi frames.
6. Double tubular supports.
7. More air per horsepower.
8. No dead center area.
9. Available horizontal or vertical construction.



STANDARD ELECTRIC

STANDARD ELECTRIC MFG. CO. • WEST BERLIN, NEW JERSEY

HELWIG

RELIABLE NAME SINCE 1865

FOR GREATER PROFITS

Heavy Duty Twin Carbonator

DEALERS—Sell the Helwig line of dispensing units with the most effective carbonator built. Positive action piston type pump... Damage free features... Noiseless. Thoroughly tested and approved in hundreds of installations.

WRITE FOR FREE LITERATURE
HELWIG TOOL MFG. CO.
422 E. 7TH ST. • ST. PAUL 1, MINN.

Find out about the entirely new principle of Helwig Two-Way Dispensing Valve... also our complete line of systems and cabinets of stainless steel.

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
giant contributor to American Progress. Somehow or other Mr. Richards, who is outstanding in any company, has been neglected (not only by this writer). By his own efforts and foresightedness he has exemplified the American Way in a remarkable manner. 'Tis a sad commentary on the journalistic profession that his good works haven't been publicized on a national scale.

Darned if I, for one, can find an excuse for failing to tell what he did for himself, and what he's done for our country. After all, I had access to first-hand information.

Here's how: All my life I've been a sports-enthusiast. (My mother used to say that I divided my time between "a book and a ball.") Shortly after Richards took over the defunct Portsmouth franchise in the National Professional Football League, and moved it to Detroit, I joined his Detroit Lions organization. Although I was a minor figure, it didn't take me long to learn that every one on the club believed that G. A. Richards was quite a man.

From the slowest-witted guard up to the keenest quarterback football has ever had, from ticket-sellers and publicity men up to the top-drawer industrialists who were Directors of the Lions—all of us admired and respected him.

Always his ethics were of the highest. Always he sought to elevate every activity he entered.

It Has Happened Here

Let's backtrack for a moment: Mr. Richards made a lot of money as one of the world's best salesmen since John Patterson. After he sold his automobile dealership for a good price (no doubt this is a coincidence, but Oakland folded up shortly afterward) he was smart enough to invest his savings into the then-struggling-and-scoffed-at radio business. He took a Detroit station off the hands of a fed-up publisher of the *Detroit Free Press*. Later, he established another broadcasting business from scratch in Cleveland (WGAR). Both prospered under his direction.

In time he was forced to move to California for his health. Unable to lie dormant, even on a sickbed, he purchased a dying-on-the-vine Los Angeles radio franchise (KMPC).

Through his vigorous promotion and salesmanship, all three of these broadcasting stations became pre-eminent and worthy of the highest regard. Together, they're valued at millions.

It's a grand American Success-Through-Brains-and-Selling Story, isn't it?

So what happens to this real American? It pains us to tell you, but this is the truth: Mr. Richards is being "investigated" by Party bureaucrats who could hound him out of business. Why? Because he was strongly anti-Roosevelt and didn't care who knew it—including his own employees—and because he has cam-

paign vigorously for the Republican Party.

If that be treason, an awful lot of us would hang.

The Power to License Is the Power to Destroy

Some time ago Jimmy Roosevelt, who has moved in on the Democratic Party in California, complained to the Federal Communications Commission that Mr. Richards had tried to influence newscasters associated with his California radio station. On the flimsy basis of gripes uttered by a couple of fired employees of that station, Jimmy intimidated the licenses of stations WJR in Detroit and WGAR in Cleveland as well as KMPC in Los Angeles possibly could be revoked.

So help us, such is the potency of the Roosevelt scion that the FCC bureaucrats actually are considering that drastic action, and are conducting hearings in which a good American's name has been impugned.

It is admitted even by his worst enemies that news broadcasts from Richards-owned outlets haven't been "slanted" in favor of Republicans and against members of the Roosevelt dynasty. The charge is that Mr. Richards personally was biased, and expressed his views freely in notes and conversations. Hence, it is insinuated, he's unfit to own a radio station. Believe it or not.

Unlike newspapers, whose publishers and editors can express their convictions freely in print, radio stations are under government control. They can't exist without a license. And, apparently, their owners can't

exercise their rights as American citizens—to have and to hold an opinion—and to talk about it.

Furthermore, if we are to judge by this case, they may be put out of business if they don't play ball with politicians of the ruling Party.

Licensed to operate, these three radio stations would be a bargain at seven or eight million dollars to a prospective buyer. Without a license, they'd have to liquidate for a few thousands of dollars (whatever their equipment would bring on the junk market).

In other words, if the Federal Communications Commission refuses to renew the licenses of the Richards-owned radio stations, Party favorites quietly could take over the junk, get new licenses from the Administration, and become millionaires overnight. We doubt that "the boys" would be that brazen. Nevertheless, the possibility exists.

After all, political tie-ups have enabled gamblers and gangsters in Chicago, Kansas City, and elsewhere to "muscle in" on all sorts of lucrative propositions without investing a dime. And, literally, they've gotten away with murder.

Nobody has attempted to murder Mr. Richards to get him out of the way. But quite a job of character assassination has been done. Concurrently, all other radio station owners possibly are cowed by this example.

Supposing YOU owned a million-dollar property, and found that it might be taken away from you by political henchmen temporarily in the saddle. Would you dare open your yap, even in private conversation? (I believe I would. However, I don't own a multi-million-dollar property which is in jeopardy, so the question may not be a fair test.)

Mind you, nobody has found fault with anything broadcast over the Richards stations. The sole criticism is of the owner's personal views and opinions.

As a publisher, I'm terribly alarmed by this situation. (So is the *Saturday Evening Post*, which editorialized on it recently.) Freedom of the Press might be next to go.

And YOU, Mr. Citizen, ought to be alarmed even more. If Freedom of the Press goes overboard, Freedom of Speech will follow. And then . . . end of the line . . . Freedom of Thought.

In other words: "thought control"

—as practiced by the Japs and Nazis—could invade America.

May the Good Lord preserve us, if we're too spineless to rise up in righteous wrath and protect ourselves.

Who Foots the Bill?

You don't miss what you haven't got.

Too many employees fail to realize that money deducted from their paychecks for withholding taxes—money they could spend on themselves—pays for porkbarrel dams and post offices, overstaffed bureaus in Washington, and burned potatoes in Maine.

Alexander Summer, a New Jersey real estate dealer, thinks he knows how to alert wage-earners to this fact.

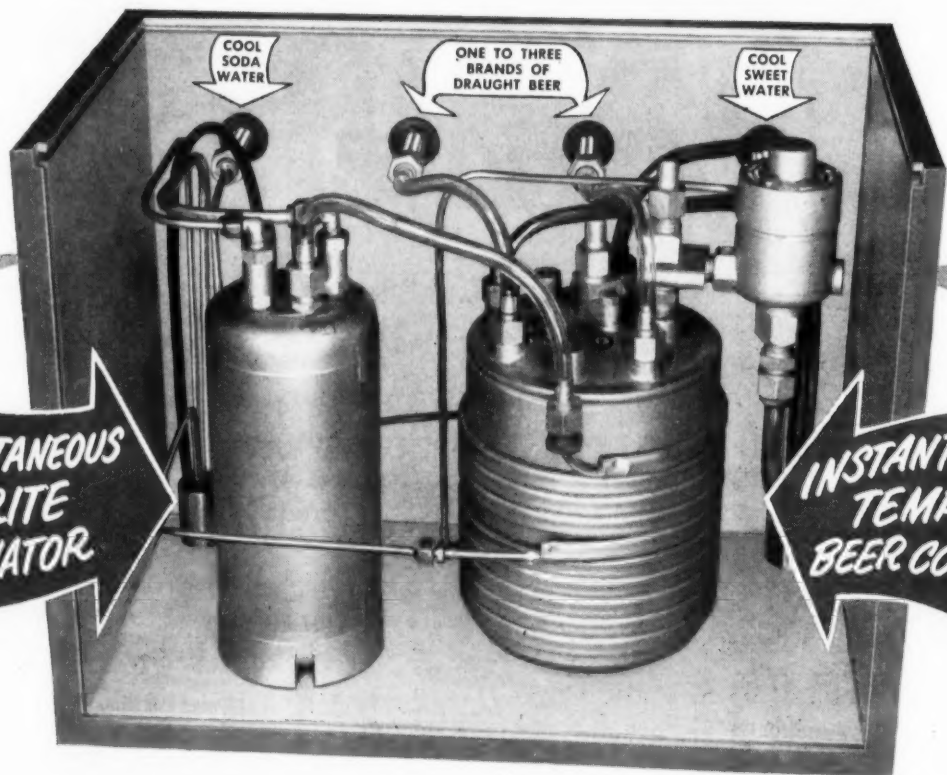
Summer pays his employees their full salary with no deductions. Twice a year he hands them a bill for their withholding and social security taxes. The psychological shock of having to dig down and fork over large amounts of cash to pay these taxes will make payrollers start to wonder whether pie-in-the-sky political promises are worthwhile, Summer hopes.

If millions of taxpayers begin to wonder whether or not all this spending is really necessary, and realize who it is that is paying for foreign fiascoes and local subsidies, the 1950 and 1952 elections may reverse the trend toward bankrupt Socialism.

Big point: It's OUR money the politicians are spending. Weekly payroll deductions extract relatively small amounts from our earnings, and maybe we don't notice them sufficiently. The total bill, however, is mighty big.

New Prospects! New Profits!

when you offer TEMPRITE'S Carbonator and Beer Cooler Installation



INSTANTANEOUS
TEMPRITE
CARBONATOR

INSTANTANEOUS
TEMPRITE
BEER COOLER

Here is your answer to a long-standing need for a compact draught beer, soda water and sweet water dispensing system . . . for taverns, bars, clubs, hotels and cafes! The complete, compact installation shown requires a space only 11" wide x 20" long x 15" high. A Temprite Instantaneous Beer Cooler and a Temprite Instantaneous Carbonator can easily be installed in any new or existing coil box. This system can dispense up to 60 gph of carbonated water; one to three brands of constant 40° F. draught beer; and ample cool sweet water.

Beer is cooled to just the right temperature through the interior stainless steel coils of the famous Temprite Instantaneous Beer Cooler. Normal temperature city water is efficiently converted to sparkling soda water in the Temprite Instantaneous Carbonator and then

cooled through the upper exterior coil on the beer cooler, just before being dispensed. The lower exterior coil cools up to 8 gph of plain sweet water.

There is an unlimited profit opportunity for refrigeration men who can offer Temprite's new combination Carbonator and Beer Cooler installation. The demand for new installations of this type is increasing daily; and a ready-made market exists for the sale of Temprite Carbonators to the thousands of satisfied users already equipped with Temprite Beer Coolers.

You can now offer your customers these 2 compact Temprite units, with assured long life; trouble-free service; and at really worth-while operating economies. *New Prospects and New Profits can be yours! Write for complete details today!*

TEMPRITE PRODUCTS CORP.
43 PIQUETTE, DETROIT 2, MICH.

Please send me complete details on your new carbonator and beer cooler application.

NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

"Be right with Temprite"

Temprite

Products Corp. 43 Piquette, Detroit 2

you will like this
Streamline
DIAPHRAGM VALVE
because



- | | | |
|---------------------------------------|-------------------------------|---|
| 1. Large "Ful-Flo" seat area. | 2. Smart new styling. | 3. 1 1/2 turns to open or close valve. |
| 4. Stem seating disc of molded nylon. | 5. Perfect diaphragm control. | 6. First prize for shortest but best in the show. |

- Over-all height approximately 3 inches.
- Ports-In-Line style.
- Permanently protected in individual, strong, metal edge cartons.

This sturdy, compact packless line valve has "built-in" long life. The large metal diaphragms have been pressure-tested through over 100,000 complete cycles without a failure.

Designed with Refrigeration service in mind, the oversize seat area practically eliminates pressure drop.

The molded nylon stem disc, tough yet resilient, affords positive shut off with extremely light closing pressure.

A neoprene cushion Back-seal prevents stem seizure and gives double "no-leak" protection with the valve in full open position.

Flared end connections are of sufficient height to allow ample wrench clearance when mounting.

ORDER FROM YOUR WHOLESALER

MUELLER BRASS CO.
Port Huron, Michigan

Self-Serve Meat Inventory System:**Commercial Dealers Might Pass This Tip Along To Customers**

CHICAGO—Those commercial refrigeration firms who have installed self-service pre-packaged meat installations for operators of supermarkets might do well to study and pass along to their customers an inventory short-cut revealed by one operator at the Super Market Institute convention here.

H. D. Anderson, vice president of Huehler's supermarkets in Peoria, Ill., explained:

"We take self-service meat inventory once a month. We are still searching for the ideal method, but we have been using one with considerable success. The plan takes into consideration three divisions:

"1. A lot of items have identical value per unit (items such as cartons of sausage, franks, bacon).

"2. Numerous other packages, like

round steak, roasts, etc., have variable units of value.

"3. Labels and supplies are very costly and therefore also need be inventoried carefully.

"The first group, items of identical value, we list on the same type of sheet as we use for grocery inventories. Columns are headed with retail prices, under which the count of packages of like value is recorded. The value of this first group is, of course, obtained by extending each column at its retail value.

"The second group, variable items, do not adapt themselves to this form. We use a team of two individuals, one calling and the other listing the amounts on an adding machine. An efficient operator can record the amounts as rapidly as called. When

the last package has been called, she has a total for this second group.

"Combining the totals of both the first and second groups gives the retail value of the total meat inventory. We convert this total to cost value by deducting a percentage determined from preceding accounting periods.

"The same plan works just as well for invoicing the self-service dairy section, with its combination of both identical and variable sizes and values.

"Now as to supplies. When the printer sends the store a supply of printed labels, pricing them per thousand, it is well to weigh a package and determine the cost per pound. At inventory time, broken lots can be weighed and exact money value can easily be obtained."

Gaal Is Sales Manager For King-Fruen, Inc.

MINNEAPOLIS—Michael A. Gaal has been named general sales manager of King-Fruen, Inc., distributor

for York refrigeration and air conditioning equipment, Fred E. King, president, has announced.

Gaal has over 24 years experience in the air conditioning and refrigeration field. He was associated for many years with Frigidaire Sales Corp. and the Delco Appliance Div. of General Motors in Cleveland, Dayton, and Detroit.

He was manager of the air conditioning and commercial sales division and chief engineer for the D. K. Baxter Co., Frigidaire distributor in a four-state area located at Sioux City, Iowa. He resigned as head of an air conditioning and refrigeration distributorship at Grand Rapids, Mich., to join King-Fruen, Inc.

The King-Fruen sales staff will cover 37 counties west and to the south of Minneapolis on an exclusive York franchise including sales and service.

REFRIGERATION UNITS WANTED

Desire to purchase 1/2 to 1-HP Sealed or open type; standard brands; Complete condensing units; Also parts; Give full details.

N. Y. REFRIGERATION CO.
35 E. 4 Street, New York 3, N. Y.

Page Completes Cooling In Charlotte Branch Banks

CHARLOTTE, N. C.—Page Air Conditioning Co., 423 Atando Ave. here recently completed air conditioning installations in three branch bank buildings of the Union National Bank of Charlotte.

According to company officials, the branch bank buildings are the Myers Park branch of Providence Rd., the Dilworth branch on South Blvd., and the Plaza branch on Central Ave.

"These major improvements were made to provide greater comfort for customers and employees," it was stated.

The heart of each of these air conditioning systems is a Worthington self-contained packaged air conditioner. The installations at Forest City and Mullins also include oil-fired York heat to provide year-round air conditioning with heating coils, it was stated.

The Page organization also has air conditioned the buildings of several other banking establishments including the Security Bank & Trust Co., Forest City, and the Davis National Bank, Mullins, S. C.

Tafel Electric Supply Expands Facilities

NASHVILLE, Tenn.—Paul Tafel, Sr., co-owner of Tafel Electric & Supply Co., 601 S. Fourth Ave., stated that work on a \$70,000 expansion program at the plant is nearing completion. The firm is local distributor for Mitchell air conditioning equipment, Universal major appliances, etc.

The expansion includes construction of an addition (70 by 116 ft.) to the present two-story building. The additional space will be utilized as a stockroom and shipping room, it was stated.

Crossleys' Will Distribute Superflow Beer Dispensers

ALLENTOWN, Pa.—Appointment of Crossleys' Refrigeration Service Sales, 615 Union St. here as distributor of Superflow beer dispensing systems in a four county area has been announced by W. R. Kromer of the Superflow Mfg. Co. in Cleveland.

The Crossley territory covers Lehigh, Carbon, Northampton, and Monroe counties. Arthur L. Crossley and James A. Crossley, his son, head the operation. Harry Mehrkam is in charge of sales.



Because -

The NEW WARREN MODEL OL-8

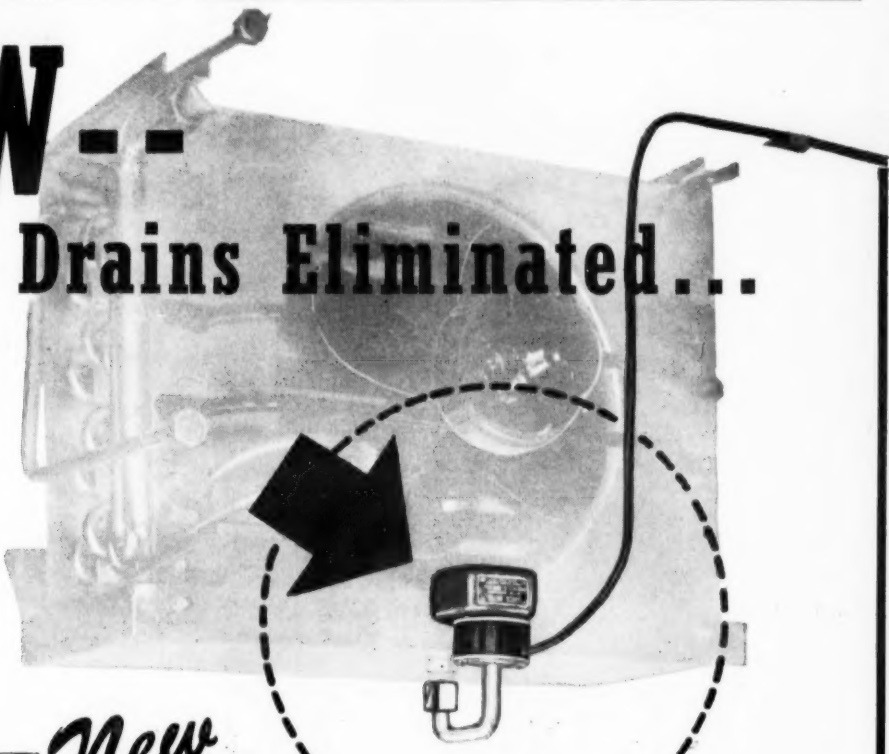
sells dry packages, really frozen. Its PERMA-VUE* mirror gives mass display, and the defrosting nuisance is completely eliminated by DEFROST-O-MATIC*.

A few territories now open.
Write for complete details.

Warren

*Exclusive Warren features.

THE WARREN COMPANY, Incorporated
P. O. Box 1436 • Atlanta, Georgia

NOW-- Gravity Drains Eliminated...**New PEERLESS DRIP PUMP**

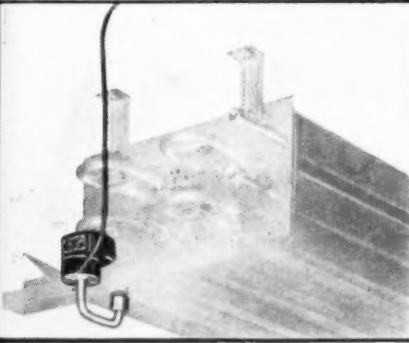
solves drain location problem for every type of commercial installation

No more dangling drains . . . now the drip drain goes UP and out, overhead, in whichever direction you care to run it. No longer need valuable cooler space be obstructed with drains, nor units be abused by collision with these hard-to-see hazards. The new Peerless Drip-pump is installed in a minute; simply detach present gravity line connection and substitute this lightweight self-mounting pump. The simple trouble-proof impeller pump is driven by a rugged life-time "flea-power" 10 watt motor. Electrical connection is made in parallel with unit fan motor, runs only when unit turns on, uses less current than a small light bulb.

Available immediately in quantity—attach the coupon below to your letterhead and let us rush to you one unit for that installation which you know needs immediate attention. List price \$35.00. Trade discounts.



Typical installation on Dome Cooler.



Installed on flash cooler — keeps everything overhead—out of the way.



• For superior performance specify all these PEERLESS products: Flash Plates, Flash Coolers, Dome and Unit Coolers, Ice Cube Makers, Fin Coils, Off Center Coils, Expansion Valves and Capacity Boosters. Write for Details.

PEERLESS of AMERICA, Inc.
1501 N. MAGNOLIA STREET CHICAGO 22, ILLINOIS

PEERLESS of AMERICA, Inc.
1501 N. Magnolia Street
Chicago 22, Illinois

RUSH today one (or more) Peerless Drip Pump.

Name _____

Company Name _____

Address _____

City _____ Zone _____ State _____



FROZEN FOOD STANDS PRICED FOR QUICK ACTION

DEALERS • DISTRIBUTORS
WRITE AT ONCE if you want to participate in this quick profit! Ideal for community shops or as drive-in service units on market lots. State your ability to handle the best letters will get preference.

TOP QUALITY

ICE CREAM CABINET

1 HP. UNIT PROVIDES 40% MORE REFRIGERATION THAN IS REQUIRED

STEEL CONSTRUCTION
8' x 13' MOUNTED ON 4 CASTERS, WHITE LACQUER, FLUORESCENT LIGHTS, 118 cu. ft. REFRIGERATION SPACE

VIA AIR MAIL

P. O. BOX 710
Los Angeles 28
Calif.

They'll Do It Every Time By Jimmy Hatlo



Do You Have 'One Foot In the Door'?



20-Year Guarantee!

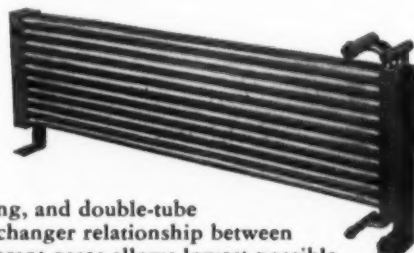
ON THE WETTED DECK SURFACE

IN THESE NEW HALSTEAD & MITCHELL COOLING TOWERS

Yes . . . here's 20 years of foolproof performance in an all-around, efficient, economical and lastworthy cooling tower. Halstead & Mitchell's processed wetted deck surface is chemically treated with special Koppers wood—guaranteed 20 years against rotting and proofed against fungi growth. Gravity-type distributing pan eliminates extra pumping head required on spray-type towers, and cuts down windage losses due to atomizing of water. And, it's easily cleaned—accessible thru inlet air side of tower.

And . . . Here's Real Efficiency in Cooling Tower Condensers

Special header slotting, and double-tube counter-flow heat exchanger relationship between water and hot refrigerant gases allows lowest possible head pressures when inlet water temperatures are high. Cleanable from both ends. In 1/2 thru 25 H.P. Capacity. Catalog No. C-3.



Built like a Battleship

HOUSING—

Of heavy 10 gauge (1/4") sheet steel, with 3 coats of Bitumastic lining, and 4 coats of outside special weatherproof paint. No zinc or alloys used, thus eliminating electrolysis or possibility of galvanic action. Electrically welded cabinet.

FANS & DRIVE—

A quiet-operating high-pressure 8-bladed STAINLESS STEEL fan, and with stainless steel shaft. Chrome-dipped rust-proofed pulleys, ball-bearing grease-sealed fan bearings, cast iron bearing supports.

Capacity range 5, 7 1/2, 10, 15 and 20 ton.

Send for Literature and Prices

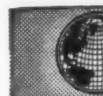
CARRIED IN STOCK BY LEADING WHOLESALEERS EVERYWHERE

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Halstead & Mitchell

OFFICES: Bessemer Building, Pittsburgh 22, Pa.

AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD

Trade Mark registered
U. S. Patent
Office:
Est. 1928



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F. M. COCKRELL, Founder

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Commencement Thought: Time To Dare Has Arrived

A N uneasy economic vacuum, such as exists today, offers an excellent place and time to present new ideas. It assures every company which has a good, useful product with both an assailable market and a challenge. It also provides daring young men with opportunities to get ahead.

Liberal credit and low interest rates are to the advantage of a new concern because they allow the securing of working capital at easy rates. Furthermore, a jittery economy seems to welcome spirited adventurers.

However, a daring young man's chance of acquiring the monetary income necessary to live a full life will depend entirely upon the ability of the individual, his desire to get ahead by his own ingenuity rather than collective action, and his willingness to sacrifice some small gain in the present for the chance of a greater reward in the future.

Rather than saying that the chances for getting ahead are difficult, it would seem that at the present time they are better than at any other time in our history. More men have the opportunity to get an advanced education than ever before in our long period of industrial development.

Obviously, a good education is the first step necessary to "get ahead." Specialists are in great demand in almost any field, and well-rounded and well-grounded men are needed, too. Furthermore, the well-educated man has the best chance of making a go of a small business.

People have savings laid away which can be used to buy new types of goods and services which appeal to them. Here is a tremendous market for ideas, and many wonderful opportunities for advancement.

A great majority of these opportunities lie in completely new fields unheard of 10 years ago!

The real question is whether or not the present generation is enmeshed by the philosophy of a paternalistic government offering dubious security from the cradle to the grave, or is willing to go out on its own and accomplish truly great things for themselves by hard work.

The difficulties encountered by a daring young man would be present at any time in some form or another in any type of economy. These factors will separate the ambitious from the lazy, and will reward those who have the skill and the ingenuity to circumvent them and make those so-called difficulties work for them rather than against them.

It may be granted that the prospect of incurring punitive taxes for more work or brain-forging will discourage ambitious youths. However, from a long range viewpoint, darers and tryers better the over-all standard of living for the greatest number of people. In other words, it's patriotic to dare and to work extra hard.

Actually, this should be the criterion for "getting ahead," rather than the number of dollars in the weekly pay envelope. Self-esteem can be based upon the knowledge that one has contributed to the uplifting of his country, his community, and his industry.

Success is relative. It cannot be measured in dollars and cents today. Any attempt to do so ignores the fact that there are many other motives for getting ahead than money alone.

And every young man and woman faces a challenge to do his best for America.

Anheuser-Busch Engineer Tells How Beer Should Be Cooled To Maintain Highest Qualities--As Brewer Sees It, That Is

ST. LOUIS—The viewpoint of the producer of beer on proper cooling practices for draft and bottle beer in retail outlets was given straight-from-the-shoulder by Dr. Bryn Nissen of Anheuser-Busch before the Midwest REMA-RSES educational conference here.

Dr. Nissen made it clear that his recommendations were given from the viewpoint of the brewer who is interested in seeing that the highest qualities are maintained when beer is cooled and served in bars, and he also admitted that sometimes these recommendations are not in agreement with what some of the consumers want in beer.

For example, Dr. Nissen thinks the ideal serving temperature for beer is 40° F., and that if it is served at less than 38° F. the dispenser is practically ruining it. But many refrigeration men, particularly those from the South, know that they would be run out of business if they didn't rig the system to produce a much colder temperature of the brew.

30° In Texas

As one Texan said in a talk with the speaker after his talk, "Why Doc, we set the thermostats for 30° down in our country."

Three elements—1. Temperature. 2. Pressures. 3. Cleanliness.—are the important factors in the handling and serving of beer, Dr. Nissen pointed out.

In brewery operations draft beer is always kept between 34 and 40° F., and every effort is made to keep draft beer at that temperature until it gets to the dispenser.

Dr. Nissen outlined the following as his recommendations on the proper temperature and pressure for beer (see two-column table):

The pressure to be applied to the package should never be less than the pressure of the beer in the barrel, according to Dr. Nissen. The pressure to be applied to the package should never exceed by more than 2 lbs. the pressure of the beer in the package.

The total number of pounds of resistance the equipment should offer should be identical to the number of pounds pressure applied to the package. For example, if the beer is kept at 38° and the pressure to be applied to package is 12 lbs., the equipment should be made to offer 12 lbs. resistance.

Data on various factors in resistance to flow in beer systems has been outlined by Dr. Nissen as follows:

If the Temperature is of beer in barrel is	The Pressure of beer in barrel is	Pressure to be applied to the package should be
42°	14 lbs.	14 lbs.
40°	13 lbs.	13 lbs.
38°	12 lbs.	12 lbs.

(1 lb. pressure must be added for every 2,000 ft. of elevation above sea level.)

1. Resistance to Flow Offered by Coils or Tubing

One pound of resistance is offered by

- Every 4 in. of $\frac{3}{16}$ -in. coil or tubing.
- Every 14 in. of $\frac{1}{4}$ -in. coil or tubing.
- Every 30 in. of $\frac{5}{16}$ -in. coil or tubing.
- Every 5 ft. of $\frac{3}{8}$ -in. coil or tubing.
- Every 40 ft. of $\frac{1}{2}$ -in. coil or tubing.

2. Resistance To Flow Existing In Adjustable Restriction Faucets

Adjustable restriction faucets offer the minimum amount of resistance when the adjustment lever is set in the wide open position, Dr. Nissen declared, and to be on the safe side, this minimum resistance must always be figured as 7 lbs.

All adjustable restriction faucets can be adjusted upward from the 7 lbs. minimum to offer as much resistance as could be reasonably desired.

3. Vertical Lift

In addition to resistance calculated on the first two factors, 1 lb. resistance must be figured for each 2 ft. of vertical lift.

The basis of 1 lb. for each vertical 2 ft. of lift is always the same, according to Dr. Nissen, regardless of the inside diameter of the coil or tubing involved in the vertical lift; and it is in addition to the resistance figured for the over-all length of the tubing or coil.

The length of the vertical lift should be measured by the straight-line vertical distance, measured from the center of the barrel to the dispensing faucet.

Dr. Nissen emphasized the importance of keeping the proper pressure on the beer in relationship to its temperature.

"Too much pressure on the beer tends to supercarbonate it, resulting in 'wild' beer," he said, "while too little pressure will result in loss of carbonation and the result will be 'flat' beer."

Urging that beer lines should be insulated, Dr. Nissen pointed out that beer in an uncooled or uninsulated spot warms up, and becomes wild.

Refrigeration contractors shouldn't wrap water lines around beer lines, because in so doing they may be warming up the beer.

Cautions on Bottled Beer

Dr. Nissen also had several comments to make about the cooling of bottled beer. In dry-type bottle beer coolers, air distribution is all important, he said, and urged that manufacturers of such equipment give more study to the problem.

He cautioned against laying bottled beer on its side in coolers unless the design was such as to insure uniform cooling of all parts of the bottle. Reason for this, the Anheuser-Busch engineer stated, is that 34° is the "inverting" temperature of beer and the beer on the colder side will tend to absorb more CO₂ gas, with the result that when the bottle is upright and opened, it tends to become "wild."

Caution was also sounded on some types of bottle openers used on bottle beer coolers, especially some of the type combined with a cap receptacle, as these tend to open the bottle at the wrong angle, and the beer again gets "wild."

Dr. Nissen encouraged the growing tendency to keep bottled beer cooled

until it is consumed, pointing out that bottled beer which is kept in an ambient of 80 to 100° over any length of time tends to lose its taste.

Covering some miscellaneous points in draft beer systems, Dr. Nissen put in a strong recommendation for Koroseal or some other plastic type of beer hose. He expressed a personal preference for the use of CO₂ gas in maintaining proper pressures on the barrel, but declared that compressed air can be used successfully.

Advice on Air Pump

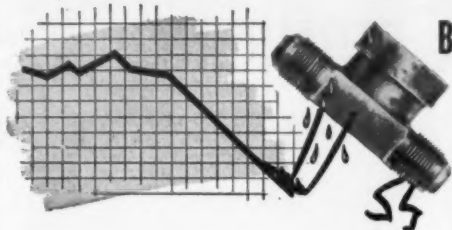
However, he said the air pump should always be of the diaphragm type and that the intake source should be from outside of the building, and that intake air should be filtered through a charcoal canister.

Questioned on the matter of chilling glasses used for draft beer, Dr. Nissen was more or less neutral on the subject, but said he didn't favor anything that might chill the beer below the temperatures he felt desirable.

Dr. Nissen advocated keeping the CO₂ gas or air tank within a cooled area where possible, as any warm atmospheres going onto draft beer may cause difficulties, he declared.

"Kinks" or a low spot or changes in tubing size in the beer line will cause "irritation" of the beer and subsequent wildness or loss of quality, he declared.

In answers to questions from his audience, Dr. Nissen stated that cooling below the temperatures he recommended wouldn't actually "hurt" beer, but in his belief it would injure the taste quality. On the other hand, draft beer that warms up too much will actually spoil.



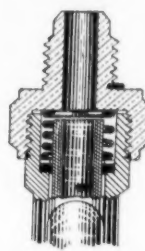
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FIELD MOTOR SERVICING: Proper Method of Checking Wear, Overload Can Save Time

ST. LOUIS—"Any case of motor trouble may be thoroughly, and more important, correctly analyzed if it is considered step by step from the source of power through to the final drive," declared B. L. Britt, manager of Wagner Electric Corp.'s electrical service department in a discussion at the Midwest Refrigeration and Air Conditioning Educational Conference here.

"The problem of field motor service is actually quite a simple matter, provided the conditions are carefully analyzed and evaluated," Britt told the servicemen and contractors.

"One of the most frequent complaints is that motors will not pull the load. This may be due to a number of things which, upon examination, will usually be self-evident.

"Every motor has on its nameplate, the voltage at which it is intended to operate; the current or amperes which it should draw at normal load; and the temperature rating.

"Frequently, we are told that a refrigeration machine of a certain model has a certain high side pressure, and a certain low side pressure which is normal for that machine, but the motor will not pull the load.

"From the motor point of view, this means nothing. This may be due to a number of things. For instance, on a three-phase motor, you may have one line out. It is customary, apparently, for a number of electricians to check a three-phase line with a lamp. You get a feed-back on the lamp. His diagnosis is that he has three good lines. Actually, the



As B. L. Britt (center), service manager for Wagner Electric, looks on, Harry Ridley (left), Wagner service engineer, shows Harry Streich of Marshall, Wis., visitor to the Midwest Educational Exhibits and Conference at St. Louis, how simple it is to put a new thin-wall bearing in the end plate of an electric motor with this special tool.

motor will single phase, and will burn up. This test is best made by means of a voltmeter.

"The matter of low voltage has been quite common. If you run into low voltage, the first thing to do is to check the size of the wiring and for poor connections. If the incoming voltage to the building is low, try to get the power company to increase their voltage if possible. This may be done by raising the taps on the transformer. During the war years many power companies in the country were overloaded. They could not get the equipment to maintain their voltage. It was absolutely no fault of theirs.

"The matter of high voltage is quite unusual. You do encounter it in some cases, particularly during the off-periods of industry. High

voltage is quite damaging to some capacitor motors and all types of motors; if the voltage is sufficiently high it will overheat.

"The only way to check a motor which apparently will not pull its load is to use a voltmeter and an ammeter. There are a number of these devices on the market which range from approximately \$26 and upwards. They may save you some time and money in removing motors from their installations and taking them into a shop only to find out that there is nothing wrong with them.

"Sometimes the thermal overload protector, either built in the motor, or mounted separated on the wall will trip apparently for no good reason. By the use of this same voltmeter, without removing the motor

from the compressor—it is a simple matter to block the flywheel of the compressor—turn the motor on, measure the current and the voltage and time the tripping time of the overload relay. This will determine two things. One, the current at which it actually trips. The other, whether or not the time was satisfactory.

"I cannot stress too much the use of the voltmeter and an ammeter. There are other things, of course, which will cause a healthy motor not to pull a load, such as low in oil, tight belts, and so forth.

Degree-Rating Shows How Much Motor Heats Up

"You will notice on this motor nameplate [illustrated with a slide] there is the marking—'continuous rating 40° C.' In a number of cases that seems to be quite confusing. Unfortunately, the electrical industry and refrigeration industry used two different scale thermometers, the main reason for that being that we normally, in the electrical business, deal with higher temperatures.

"That 40° C. continuous rating means this: the motor will carry this rated horsepower load and when on 110 volts will draw 3.4 amperes and the motor temperature rise will not exceed 40°. That means, if you have an ambient temperature in a room—we are referring now to a Fahrenheit of 70° which is equivalent of 21° C., and the motor attains an over-all temperature of 61°, that it is not exceeding its guaranteed temperature rise.

"A lot of people tell us they can't hold their hand on a motor—it's too hot. Well, 61° C. is 141° F. If you have ever parked your car out in the sun and closed your windows up in the central section of the country, and you have a thermometer inside your car you will find it reaches about 130° and you can't hold your hand on the steering wheel or anything else in that car until it cools off.

Taking Motor Temperature

"It is a very simple matter to take a thermometer and lay it on top of the motor frame, put a handful of putty on top of the bulb to seal the bulb of the thermometer to the motor frame and actually measure the temperature of the motor. If this is not more than 40° C. higher than the room temperature, the motor is perfectly safe to operate. If it is, you either have an overload or your motor is in distress.

"Now there are limits to that. Motors are normally built of the 40° temperature rise rating to operate in a maximum ambient temperature of 40° C. That brings it up to a total temperature of 80° C. or 176° F., which is getting it pretty near the boiling point of water.

"There is an interesting thing in connection with this temperature subject," Britt continued. "This temperature rise of 40° C. as measured on the motor frame or the core iron is considerably hotter than the temperature at which bearings normally operate.

"The bearings are outboard on the motors, of course, and have better radiation. They are farther away from the heat generated from the copper winding and the core iron circuit of the motor, and they should not run anywhere near that temperature, for the simple reason that most commercial oils start to gas at 65° C.

"Therefore, if your bearing temperatures run in the vicinity of 65° C., your oil will start to gas, and unless someone replaces that oil, the bearings will run dry and fail. Sixty-five degrees centigrade is 149° F., which is somewhat cooler than 176°

maximum permissible temperature on the motor iron.

"With regard to built-in protectors, these should not be tampered with. You have seen them and you have seen someone take their finger and work that little spring. The minute you do that manually, you have ruined the calibration of that protector because it is made only to operate on temperature and current. Any movement of that bimetal manually will destroy the calibration.

"The built-in protectors on the small motors are probably the best type of protection that you can put on a motor. The second best thing that you can put on them is probably the fusetate or fusetron. Straight fuses cannot protect a motor. It is impossible for a straight fuse to protect a motor. It protects only the wiring.

"You may have seen two motors on one control box with one set of heater coils. Neither motor is fully protected. They must have individual protection.

Unbalance Causes Noise

"The subject of noise is one which comes up quite frequently, and it is also due to a number of things. Most motor armatures are dynamically balanced. A static balance on a motor armature means practically nothing. The motors don't vibrate when they stand still. You have to dynamically balance them to get them to run smoothly. You may have had experience on balancing the wheels on your automobile. It makes a remarkable difference in the smoothness of the ride; the way it holds the road; tire wear, and so forth.

"If you find a noisy motor which appears to be vibrating, the first thing I would do would be to remove the motor pulley and run the motor. If the motor continues to vibrate, it is obviously out of balance, and should be taken to a good shop and dynamically balanced. If the motor runs smoothly with the pulley removed, get the pulley dynamically balanced. Most good repair shops can perform that for you. This same story applies to the compressor flywheel. Usually, however, these are in very good balance. Another thing, of course, is due to unequal or rough belts, or the machine not being set level.

"In the matter of radio interference, the best thing you can do is put a good ground from the frame of the motor to a water pipe or some good ground. This, of course, is after examining carefully for loose connections in your switches, unsoldered joints and wiring, and so forth. In some severe cases, it may be necessary to put a pair of small condensers across the motor to ground.

"As far as actual motor repairs in the field, in the case of capacitor motors, ordinarily the capacitor is the weakest point and requires replacement. They do have some shelf life, although this has been greatly improved as the art of making capacitors has progressed. It is a very simple operation to replace the capacitor. There are about three capacitors that you can carry with you which will cover almost any of the popular motors that you will encounter.

"The switches of capacitor motors are also easily replaced in the field. However, always use the motor manufacturer's switch rather than the so-called universal type.

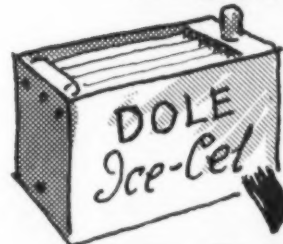
"You can also replace the rubber cushions or mountings on these motors. It is a very simple thing to do.

"In regard to the repulsion-induction motors, it is simple to replace (Continued on next page)



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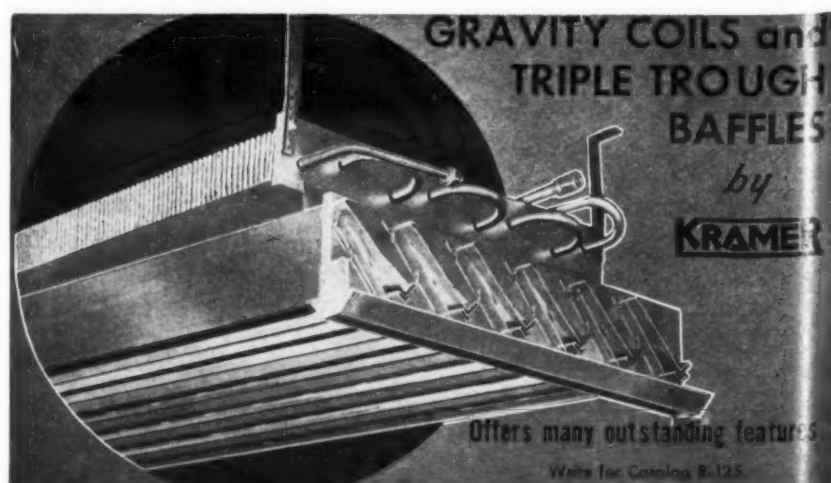


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(Continued from preceding page)

the brushes; to sand off the commutator with No. 00 sandpaper, not emery or other conductive abrasives. When you do that you most certainly should polish the bore of the commutator. That is equally as important, if not more so, than the face of the commutator.

"The question of undercutting the mica in a commutator is one that we believe important. We undercut the majority of our commutators. There are under tests commutator insulations which will not require undercutting. They are some distance in the future, however.

"It is the insulation between segments of the commutator which should be undercut. Sometimes you will find that particles of carbon, grease, and other dirt may get down in between the bars and bridge a bar or two. Also it might try to bridge the insulating washer which insulates the copper segments from the brass short circuiting ring.

What's Cause of 'Etching'?

"Some of you may have seen motors where the shaft journals and bearings have been etched and for no apparent reason. That etching is caused by what we call shaft currents, and it is caused by the short circuiting necklace which short circuits all the bars to the continuous ring or hub of the commutator on some designs of commutators.

"I want to call your particular attention to the fact that this ring is also insulated by means of a bakelite washer from the steel hub but obviously it is more difficult and expensive to build that way than merely having this steel hub extend up to this point. It was necessary to do that to get rid of the shaft currents in the repulsion-induction type of motor.

"If you find a motor had originally this type of commutator on it and it has been replaced with one which has a continuous steel hub here, and you encounter etching of the shaft journals, you could probably say that is the cause of it. The only cure is to put this type of commutator on there which has the separate short circuiting ring which is insulated from the hub.

Rotor Fails Most Often

"On the repulsion-induction type of motor the armature or rotor is the one which most frequently fails. The stator is ordinarily in good shape.

"These armatures are a stock item. They are identified as to the specification motors in which they may be satisfactorily used. One particular armature can be used in some 144 different specifications of motors used in refrigeration work. It is a complete unit having the brush rigging and the short circuiting device and all that—the commutator ready to be installed in the motor.

"The shaft is new and up to full size. It has been dynamically balanced; it is a good smooth running piece of machinery. They can be replaced in the field if you are careful to adjust the brush holder to obtain the proper starting torque of the motor after installation of that rotor," Britt said.

"There is one other point of interest in connection with standard Wagner armatures, and that is the shaft can be replaced without disturbing the windings or the electrical structure of the armature. This may save you the unpleasant task of having to turn the shaft down and polish it and then make a set of undersize bearings for it.

"You can also replace bearings in the field. Our company's method of making their service bearings for replacement in the field is quite simple and yet very accurate.

"In regard to the lubrication of sleeve-bearing motors, we do not recommend the use of refrigeration oils. Some of them are not too good for motor bearings. They are expensive and very good for refrigeration compressors. We prefer that you use a good red engine oil, or a good grade of SAE-10 motor oil. We recommend that the 10 grade oil be used in all sizes of our sleeve bearing motors whether it is a fan motor you hold in your hand or a 400-hp.; whether it's wick oiled or ring oiled. The weight of the oil is determined by the clearances which we maintain.

"Motors do require oiling and we also know that you are usually in

a hurry to get your job done and get on to the next one. We have that same problem in our business. The thing to do is to oil the motor until the oil comes out the overflow hole," Britt suggested.

"Some side-oiled motors use the top of the oiler as the overflow. Others have a notch cut in the lip of the oiler cup. The purpose of that notch is to break any oil film between the cap of the oiler and the main cup itself, because if you do not break that film, it is possible for all the oil in the oil well to siphon out. You could even put a beaker or cup underneath this in making these tests and all the oil will come into the glass.

"There is also on all Wagner motors an overflow hole in the oil well. All motors should be oiled when they are standing still. Take the time to oil it until the oil comes out, not out of the oil cup which might be on top of the motor, but out the overflow hole, which indicates on the wick oiled motor that the oil has saturated the oil wick, and in the case of the ring oiled motor, that it is up to level.

"Incidentally, on the larger motors, I will say 5-hp. and larger, you may also run into siphoning or loss of oil due to draft. That is another reason the oil overflow hole and oil cup notch were put in the motors. The other thing is that the plate which retains the oil ring in the oil well should be sealed with a gasket and gasket cement.

Locating Oil Loss Tricky

"On the very large motors, it sometimes becomes necessary to clamp to the rotor shaft a cast alu-

minum housing which is bell shaped and covers the nose of the oil well itself. It is sometimes pretty tricky to locate loss of oil in the sleeve bearing motors. And, further, once you set up a path of oil, it becomes very difficult to stop it. The best thing you can do is wash the complete end plate and bearing housing with carbon-tet, or some other drying agent and then start over again.

"Of course, one of the simple reasons that we lose oil from the motor is the fact that somebody doesn't put the drain plugs in tight. That happens very frequently. In fact, our company discontinued using drain plugs at one time just because it was human nature not to make sure they were tight. They would tighten them finger tight and the oil would just follow the threads down. We had to put them back in because people wanted them.

"While we are on this oiling subject, on most motors which are shipped out, it says 'oil this motor before using.' A lot of people say, 'Well, that's a wick-oiled motor; it's got enough oil in it.' We put in as small an amount of oil as we can to prevent the oil running out of the oil well during shipment. The motors do get turned upside down in shipment and handling. But be sure to oil every new motor before you install it—before you try to run it. That is important.

"During the war it became necessary for a number of companies to go to leaded bearings. As you know, the Japs got all the tin. In going to these leaded bearings which were softer, particularly in the case of the beaded babbitt bearing, this was not too advantageous. We began to encounter bearings which were etched

out.

"You may have seen this yourself on a motor that required new bearings," Britt said. "You have taken off the end plates and washed them up in whatever solvent you have to use and, for some reason or another, put your finger in the bearing to feel how bad it was. You took your finger out and it probably looked like it had graphite grease all over it. That actually was not a lubricant but a soap, and that bearing may not have worn out—it was eaten out. That was caused by acid oil corrosion and any leaded bearing that we found was subject to acid oil corrosion.

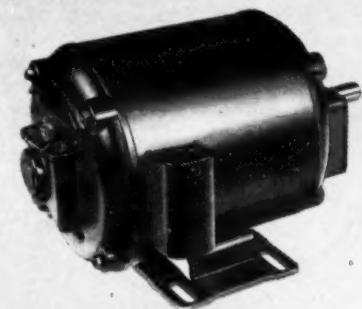
"The alloy which the Wagner company used from 1927 until about 1941, was a 90% tin babbitt. We had no bearing trouble.

"Comparing reactions of various type bearings with various oils, Britt said, "I want to call your attention to the fact that this 90% tin bearing would lose in a corrosion test, 30 milligrams of weight clear across the board. The lead bearing, or leaded bearing, would lose 60, 70, 50 and 50 which was not so good.

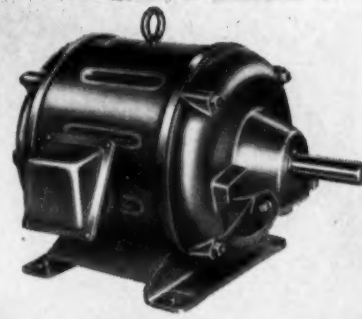
"Three alloys of leaded bronze lose 80, 500, 175, and 150; on another one—100, 650, 300, and 200; on still another one, 150, 1,500, 425, and 350. The smallest losses on all of them are with the conventionally refined oils. Actually the best oil to use in a motor is, as we say, a red engine oil, or an electric motor oil of which there are a number on the market.

"The best electric motor oils are a turbine grade of oil which has two additives—one is non-foaming which is important when you get into this draft problem that I mentioned a few minutes ago on sucking the oil

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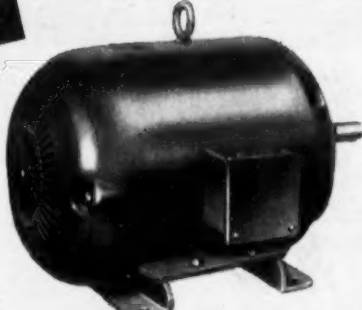
Repulsion Start Induction Motor
1/4 to 15 hp.



Open-type, Polyphase Squirrel Cage Motor
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Explosion-Proof Motor
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ORDER A CARTON TODAY
from your refrigeration wholesaler.

Journals Rusting During Winter Shutdown Can Cause Spring Motor Bearing Failure

(Concluded from preceding page)

out of the bearings. The other is an anti-rust additive which is very helpful on air conditioning jobs where the motor stands idle for several months out of the year.

"You may have started up a compressor on an air conditioning job along early in the spring and had the bearing fail quite shortly. That may have been due to the shaft journals rusting during the shutdown period due to the collection of moisture."

Final point made by Britt in his talk on repairing motors was a demonstration of how a thin wall bearing can be replaced without buckling the new bearing in the process. A standard end plate, a standard thin wall bearing, and the bearing replacement tool developed by Wagner were used.

"Walk in anybody's repair shop or look in anybody's tool box, and he has got an old piece of a shaft, something like this, that he drives the bearing in with. And then he reams them."

"Now, I have never been successful in reaming a bearing down to a 3/10,000th tolerance," Britt declared.

Reaming 'on a Dare'

"What he does is that he reams the least he dares until he can get it on the shaft, because he has buckled that bearing and the shaft is riding on the high spots. And

after it has been out a while, it is going to get loose again.

"This bearing has extremely close tolerances. The only reason this tool works is because of the fact that the dimensions of the tool, the bearing and the end plate are such that the bearing can't buckle—it hasn't got any place to go. And you get a full fit bearing job."

Use Old Bearings for Guide

"This happens to be a split bearing. It drops on the tool freely and yet if I squeeze that bearing I can hold the tool up. You put the bearing on the tool with the beveled edge leading. We then put a collar on there which also has a beveled edge and the purpose of that collar is to carry the old bearing clear out of the motor. Then instead of getting in a press and worrying about whether it is going to go in squarely, we use the old bearing as a guide—even if it is quite bad. We line up the oil wick hole. That's how long it takes to change bearings. And you don't have to ream it."

"Now, if the shaft has gone bad and you have to turn it down, the other end of this tool is for unbored bearings which you have to ream to size. But you would be surprised the number of motors that you can put this bearing in in the manner I did and find that you have a very successful job."

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"Bevco & Maid"

Now! with 5-Year WARRANTY PLAN on Hermetically Sealed Refrigeration System.

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Model "C" COOLER

features ADJUSTABLE DIVIDERS

Bevco scores again with a cooler that provides full depth corded bottle storage! Model "C" combines typical high quality workmanship, materials and outstanding Bevco performance. In line with our aim—"GET MORE FOR YOUR COOLER DOLLAR", Model "C" Coolers take care of greater bottle storage in smaller space. Dividers are constructed so that they can be re-arranged to accommodate bottles and other merchandise of varying sizes. Your dealer will be asking you for this type cooler. Be the first in your territory to show the new Model "C".

MOVES More MERCHANDISE

Bevco Model "C" is available in 3 sizes:

Model C300, 47½" L x 33" H x 28½" W, 300-7 oz., 240-12 oz.
Model C420, 58½" L x 33" H x 28½" W, 420-7 oz., 300-12 oz.
Model C540, 68½" L x 33" H x 28½" W, 540-7 oz., 360-12 oz.

The BEVCO Company, Inc.
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☐ Send more details on Bevco New Model "C" Coolers.

Name _____

Company _____

Address _____

City & State _____

What's New

New Line of Frick Conditioners Hits Market



WAYNESBORO, Pa.—Frick Co. has released details of its new line of unit air conditioners, of which the 5-hp. size, model 520, is the first to be placed on the market.

The new unit conditioners have a Rexton "Hammermatic" finish, of pale mottled blue-gray color. The surface is smooth, and can readily be refinished to match special color schemes, according to the company.

The sides are of 16-gauge steel, double-flanged at the edges for stiffness, and welded to 14-gauge frame members. The large removable panels on the front are held in place by spring clips. (All interior walls, including the removable panels, are insulated against sound and heat transfer with ½ in. of rock wool, cemented in place.)

Smaller panels at the sides and back are arranged for admitting fresh air, or connecting ductwork for distributing the treated air. The main outlet has adjustable louvers by which the air stream can be directed to either side, up or down, outward or converging. The top section of the cabinet, containing the plenum chamber, is removable.

The fan is of the heavy-duty blower type, with double inlets, and is well adapted to use with ducts. The shaft runs on ball bearings. The fan motor, of ½ hp., is rubber mounted and has an adjustable pulley which permits reduction of the air volume up to one third, if desired. Maximum fan capacity exceeds 2,000 c.f.m., Frick said.

Between the fan and the four rows of finned non-rusting cooling coils is an open space for the insertion of heating coils, for winter use. Below the finned coils is a coil of bare copper pipe, used for pre-cooling the air and superheating the suction gas.

Immediately below this is the air filter, made with several layers of non-rusting wire mesh, corrugated to give extra surface and dipped in oil to catch dust. When the compressor operates, water drips from the coils, washing the filter and carrying with it to the drain the removable impurities. This type of filter permits

'Freezer-Chest' Refrigerator



Model 9202, latest addition to the refrigerator line of the A. J. Lindemann & Hoverson Co., is the freezer-chest type shown here. Special features include an 8.5-cu. ft. size with frozen food capacity of 53.5 lbs.

periodic laundering and re-use.

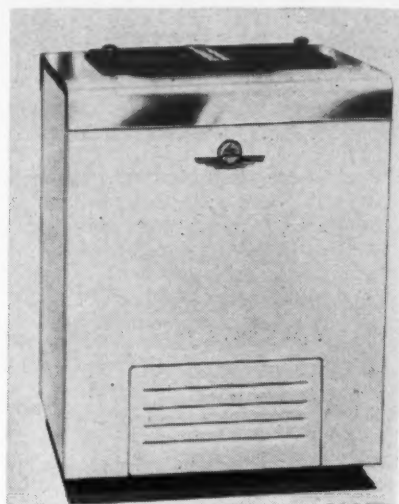
Drip pans are provided both below the filter and underneath the refrigerating machinery. The bottom of the cabinet is reduced in size to give "toe" room, and allow placing it close to a wall.

The compressor-motor assembly is a hermetic type that permits field service. It has cooling water jackets on both sides of the motor windings; these jackets also remove compressor heat. The unit is mounted on springs. The shell of the condenser is insulated; practically all of the heat from the discharge gas is carried away by the

cooling water, it is claimed.

Electric controls are all mounted on a panel behind a small access door. The main dial permits operating the fan alone, the fan and the refrigerating system, or shutting off the entire unit. A separate dial adjusts the thermostat, the bulb of which is placed beneath the filter in the return air stream.

Dimensions of the complete 5-hp. Frick unit are: 42 in. wide; 27½ in. deep; 86 in. high.



Ace Ice Cream Cabinet Is Designed for Small Space

NEW BEDFORD, Mass.—A small sized 10-gal. ice cream storage cabinet designed particularly for installation in close quarters has been announced by the Ace Cabinet Corp. here.

The new unit, called the C-2-S10 has a one-piece stainless steel top and a sealed unit.

SNAP-IN GRIDS

... the economy replacement air filter, for central systems.

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RESEARCH PRODUCTS CORP.
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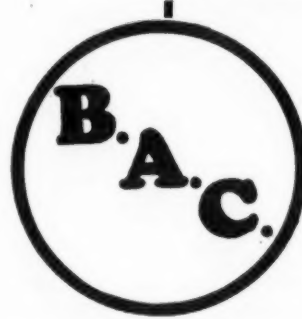
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PRODUCTS COMPANY, Plymouth, Mich.

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Making Possible a Rapid Diagnosis of Operating Troubles.

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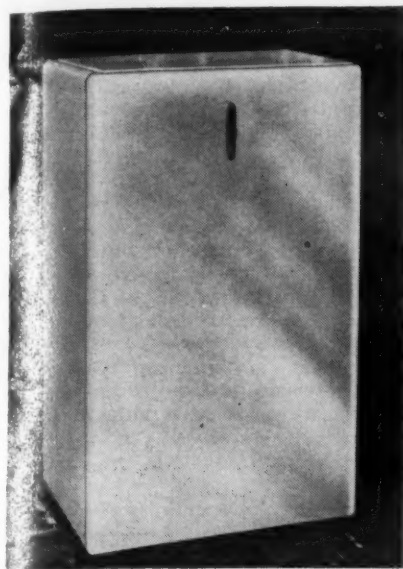
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CEE-KLEER Sight Driers are 100% cleanable and refillable. A combination: Sight Drier-Strainer-Filter ALL IN ONE. Traps sludge, wax and foreign particles—assures clean systems. Makes servicing easier, faster—eliminates guess work.

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1335 Walnut St., Cincinnati 10, Ohio

What's New (Cont.)



Levittown To Use Compact 2-Temp Water Heater

YORK, Pa.—Introduction of a new 1950 model oil-fired radiant heating boiler unit "that looks like a refrigerator" has been announced by York-Shipley, Inc. here.

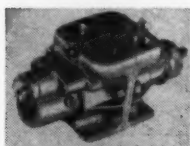
The new unit, called the "Levittowner," incorporates in a single unit a low-temperature heating boiler for water for radiant heating, a hot water boiler to heat domestic hot water, and an expansion tank. The design of the boiler makes it possible to furnish two-temperature water from the same boiler without the use of a mixing valve control, according to the company.

Because of its compact design and quiet operation, it is housed in a white refrigerator-type cabinet 51 in. high and occupying less than 5 sq. ft. of floor space.

A contract for 4,000 of the new type boilers has been awarded to York-Shipley by Wm. Levitt & Sons, builder and developer of Levittown, Long Island, to be installed in the kitchen of the 1950 Levitt homes as a source for all domestic hot water requirements on a year-round basis.

Eco By-Pass Keeps Water Pump Pressure Constant

NEWARK, N. J.—Development of a hydraulically balanced by-pass for its gearless water pump, which permits the pump to deliver "a constant volume of water at constant pressure, regardless of variation in line pressure," has been announced recently by Eco Engineering Co., 12 New York Ave. here.



Constant volume and pressure is said to be maintained by the use of a floating spool.

This floating spool, the company explained, allows more or less water to pass by, producing a greater or lesser flow, due to a series of velocity-regulating small orifices in the spool.

"The head pressure at which the pump is required to operate in order to deliver a uniform quantity of liquid through a given orifice may be set by the by-pass and all excess liquid will be spilled over into the low side," the company further said.

Applications of the by-pass include use on carbonating machines, on booster pumps for city water pressure, and in shallow water well systems.

The pressure does not vary up and down as the pressure of the supply water varies, the manufacturer claims.

Imperial Bender Can Slip Over Tubing at Any Point

CHICAGO—Full 180° bends and positioning at any point on the tubing without disassembly are two of the advantages listed for the new gear-type tube benders which have been announced by The Imperial Brass Mfg. Co., 1200 W. Harrison St., here.

The high gear ratio of these benders is said to make bending ex-

ceptionally easy. Other features emphasized are compactness and light weight, in addition to quality of bend.

The benders are designed for use with copper, brass, aluminum, or steel tubing, including Bundy and thin-wall conduit.

The company manufactures individual benders for 1/2-in., 3/8-in., 7/8-in., and 1 1/2-in. o.d. tube sizes, nominal tube sizes 3/8-in., 1/2-in., 5/8-in., 3/4-in., and 1-in. There are also combination benders which take several sizes.

Bends can be made to any angle up to 180°, according to Imperial. Tubing will not flatten or kink, it was stated, due to close precision fit of bender and fact that bends are formed by an action similar to original drawing of tubing. Because benders are of open side type, they can be slipped over tubing at exact point bend is desired without disassembly of any part, according to the manufacturer.

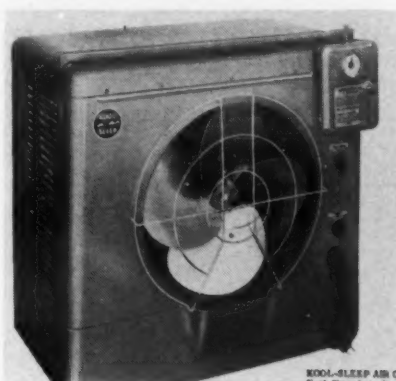
High tensile strength materials are used throughout, the manufacturer



reported. Ferrous parts are cadmium plated.

Benders are designed so they can be held in hand, or clamped in vise. Extension handles are provided in sizes for 3/4-in. o.d. and larger. On 1 1/2-in. size, the handle is designed for clamping into a standard pipe vise.

Full information is contained in Bulletin No. 382-A available from the company.



Kool-Sleep Window Fan Comes with Coin Device

CAMBRIDGE, Ohio—A self-contained window fan cooler available with or without a coin operating mechanism has been put on the market by Kool-Sleep, Inc., located here.

Weighing 46 lbs., the cooler is 23 1/2 in. high, 24 in. wide, and 15 in. deep, and is finished in baked bronze enamel hammertone. It has an announced average cooling capacity of 2,600 c.f.m., according to the manufacturer.

Outside air is filtered, washed, and cooled as it is drawn through the sides and rear of the unit and is then circulated throughout the room. More than a 20° temperature drop is said to have been recorded by use of the cooler.

Operation is controlled by a separate cooling switch and a three-speed ventilating switch. Water or drain connections are not required, it is claimed.



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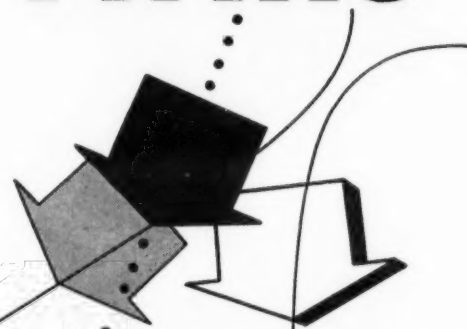
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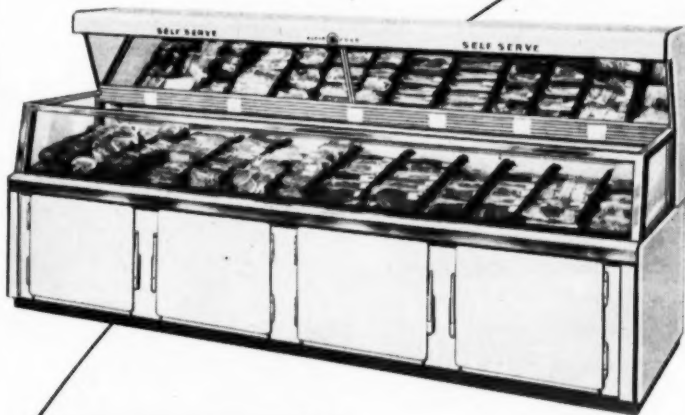
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MARKET MASTER FOR BUTCHER SERVICE

Now, the new Market Master is even finer, more beautiful than ever, with features that mean more sales and more profit from those sales. This new Market Master is an irresistible invitation to your customer with sales appeal that just can't be beat. It's a fact... "Always and all ways the Market Master by Super-Cold is way out ahead."



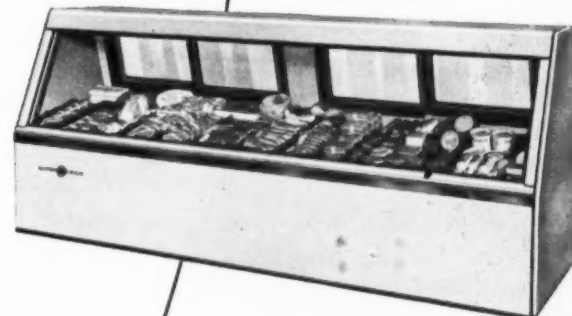
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Sell the line that offers complete merchandising, from a firm that can give sales training and merchandise techniques gained in 25 years of successful retailing as well as manufacturing and distributing experience. Super-Cold allows you high profit, with advertising sales material support and cooperative assistance to make your job easier on one of the most liberal franchises available. You'll be 'way ahead with Super-Cold. Get facts now!

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The New **SUPER-MITE** CARBONATOR by **Everfrost**



MODEL RC 50

Here, ready to bring new profits to you and better beverages to your customers is the revolutionary Everfrost Super-Mite Carbonator. The newest addition to the famous Everfrost line of Soda Fountains, Carbonating Equipment and Drink Dispensers.

The Super-Mite is a complete carbonating unit so small and so light it can be installed in any convenient location; yet large enough and powerful enough to reliably supply fifty gallons of high volume carbonated water every hour.

Fully automatic, the Super-Mite is ruggedly constructed to give years of trouble-free service.

ORDER DIRECT OR WRITE FOR ADDITIONAL INFORMATION TODAY

- 50 gallons per hour capacity
- Only 14" x 17" x 13" high
- Weighs only 65 pounds
- Diaphragm type pump
- Easy to install

Dealer Net Price
ONLY
\$125⁰⁰

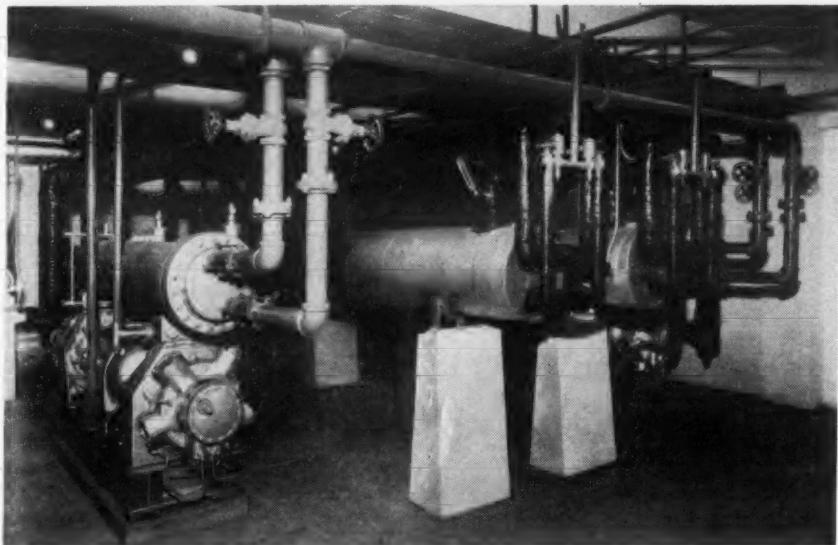
F.O.B. Los Angeles
Complete with gas
gauge and regulator.

ANDERSON & WAGNER INC.

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Power Behind 100-Ton Cooling System In Havana, Cuba

Two model 10-H Airtemp compressors supply the cooling for the "La Tobacalera" building in



Havana, Cuba. The chilled water storage tanks are seen in the center between the two compressors.

Insurance Co. Building Air Conditions 6 Floors and Mezzanine With Off Hours Cooling Supplied by Chilled Water Storage Tanks

HAVANA, Cuba—"La Tobacalera," the new home for one of Cuba's largest and best known insurance companies, is completely air conditioned throughout its ground floor, mezzanine, and the five floors above by a 100-ton chilled water indirect system which was installed by La Antilliana, S. A., Chrysler Airtemp distributor for Cuba.

Powered by two model 10-H compressors, the air conditioning layout

maintains 78° F. and 55% relative humidity through seven separate systems—one each for the five floors above ground, one system for the ground floor and mezzanine, and a separate conditioner for a conference room on the mezzanine.

Shell-and-tube condensers are employed with the two compressors, which are twin 5-cylinder radial machines. An induced draft cooling tower is employed, also.

Water chilling is handled by two Acme Dry-Ex chillers, each of which is divided into two circuits with solenoid expansion valves and has a 3-hp. pump. A water storage tank measuring 7 by 14 meters has been incorporated in the system to improve its operating efficiency.

The five conditioners for the upper floors are served by a 10-hp. centrifugal water pump installed in the basement. The temperature of the

water discharged by the pump is kept constant by a modulated thermostat that activates a three-way motorized valve which mixes water returning from the conditioners with water from the chillers.

A 2-hp. water pump with a similar control supplies chilled water to the conditioner handling the ground floor and mezzanine, while a 1-hp. pump takes care of the conference room where shareholders of the company meet.

During periods of partial load a "bank" of chilled water is built up in the water storage tank which is equipped with baffles to stratify the water temperature. The water that is discharged from the chillers flows through a header which supplies the pumps forcing water to the conditioners. This header is also connected to the "cold side" of the water storage tank.

Return water from the conditioners and the suction from the chillers pass through another header which re-

ceives water from the "warm side" of the storage tank.

Operation of the entire air conditioning system for the building is controlled from a central panel. Each conditioner operates independently with two switches, one for air and the other for the cooling plant.

The complete system can be operated automatically by means of a step-controller on the control panel, or it can be operated manually, each circuit being placed in operation as desired. The control setup includes time-delay relays which stop the compressors in the event the water chiller pumps do not operate.

Ordinarily, the equipment is shut off at 6 p.m. But if one of the companies occupying an upper-floor office works over-time, or if shareholders have an evening meeting in the conference room, these conditioners can be operated without starting up the compressors. Chilled water is merely pumped from the storage tank.

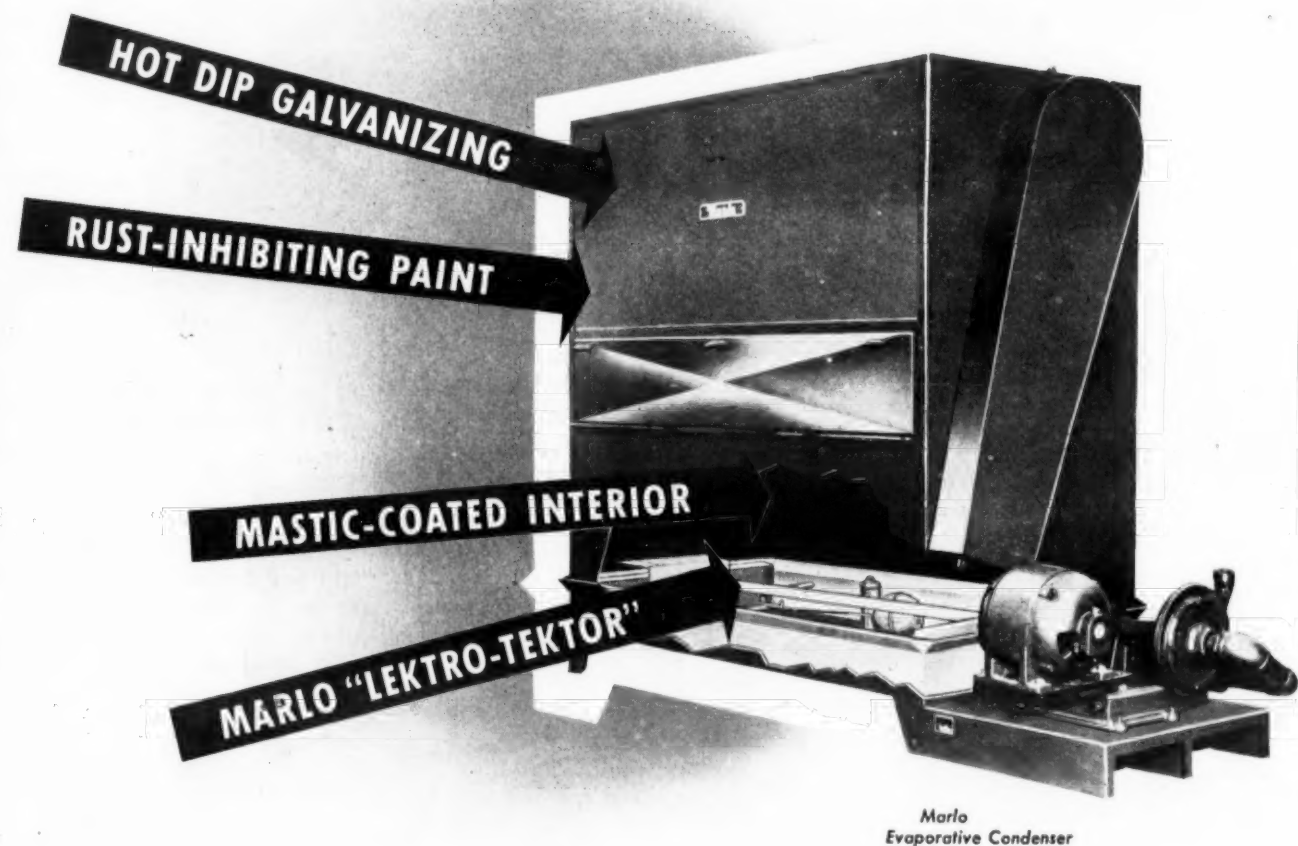
Mfrs. Put on 'Educational Acts' for Service Engineers



Brunner Mfg. Co.'s exhibit featured its special condensing unit capacity control, with un-loader feature, and a display of compressor parts. In discussion in the booth here are Don Wickham and J. F. Wickham of Lincoln, Neb., and T. Jack Lyon and Larry DeMarsh of Brunner.

ONLY MARLO COOLING UNITS ARE DOUBLY-PROTECTED AGAINST CORROSION

...Outside and Inside



Marlo Evaporative Condenser

To assure dependable, longer-lasting installations for you — Marlo Evaporative Condensers and Cooling Towers offer this big four-way defense against corrosion:

Outside—over the Hot Dip Galvanizing—Marlo all-steel housings are sprayed with a special rust-inhibiting alkyd resin-base paint that forms an extra front line barrier against corrosive elements.

Inside each unit—sheets, panels and galvanized parts are coated with a sound deadening asbestos-asphalt mastic that doubles as an efficient corrosion-retardant. Additional internal protection is afforded by Marlo's exclusive "Lektro-Tektor" that prevents electrolytic sump tank corrosion.

MARLO-HEAT TRANSFER
Since 1925



Write for complete information on Marlo Evaporative Condensers and Cooling Towers.

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J. D. Merkle of Normandy, Mo. (right) is the "audience" as R. L. Larson, Dr. Edgar Ross, and A. W. Regan of Sun Oil Co. go into the demonstration devised by Sun to show what happens to various kinds of lubricating oils in both "normal" and low-temperature refrigeration systems.



Simplify Your Construction Methods with Engineered KOLD-HOLD Liners

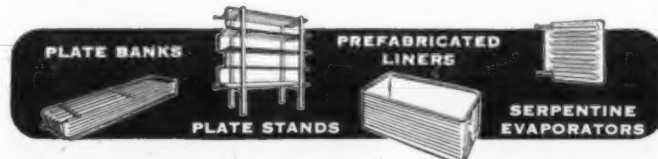
You save hours of valuable construction time and build extra efficiency into refrigeration equipment, by using prefabricated Kold-Hold Liners. These Liners quickly slip into place to provide adequate refrigeration for the sharp freezing, cooling and holding of all types of foods and perishable products. The inner surface is smooth and sanitary — no other linings required.

There are no refrigeration joints to become damaged with the complete cabinet liner. Liners are fabricated from Serpentine Plate Evaporators

without interfering with the Serpentine principle of refrigerant flow. Therefore, they retain all the advantages and proven dependability of Serpentine construction.

Kold-Hold Prefabricated Units save time and money for the manufacturer, service engineer and user. They increase efficiency and reduce the cost of both domestic and commercial refrigeration equipment. They simplify conversion of obsolete equipment to meet today's standards of efficiency and dependability.

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KOLD-HOLD MANUFACTURING CO., 500 E. Hazel St., Lansing 4, Mich.

Moisture Removal

Carter, of Detroit Lubricator, Describes 4 Methods To Rid Refrigerating System of Moisture

ST. LOUIS — Four practical methods of "Removing Moisture from Refrigerating Systems" in the field were outlined by F. Y. Carter, chief sales engineer of Detroit Lubricator Co. at the 1950 Midwest Refrigeration and Air Conditioning Educational Conference here.

These four methods are:

- (1) Heat and vacuum.
- (2) Drying with hot air.
- (3) Drying with carbon dioxide and alcohol.
- (4) Double evacuation.

Editor's Note: Carter described these methods at the previous series of REMA-RSES educational conferences, and his talk was published in detail in the Jan. 10, 1949, issue of AIR CONDITIONING & REFRIGERATION NEWS, to which the reader is referred for a complete discussion of the problem and methods.]

In brief, then, here is how these methods suggested by Carter can be employed by drying systems in the field:

Heat and vacuum. A portable vacuum pump capable of drawing a vacuum of 28 or 29 in. of mercury is connected to the system and started. With heat lamps or infrared lamps, warm every part of the system while the vacuum pump is running. The length of time necessary to dehydrate completely will depend on the size of the system and the capacity of the vacuum pump.

Drying with hot air. Moisture can be removed from a system by heating

air to 175° F. in a tank placed over a gas burner and then either (a) pulling the hot air through the system with a vacuum pump, or (b) forcing it through under pressure. In either event, air first passes through a cartridge type drier before entering the tank to be heated.

Drying with carbon dioxide and alcohol. This method is recommended when large quantities of moisture must be removed, such as might occur if a water-cooled condenser broke and filled the system with water. The system is blown out with dry CO₂ gas. Then pure methyl alcohol is blown through with the gas, after which the system is cleared of alcohol by again blowing through with CO₂. A service drum is rebuilt to provide gauge, valves, and funnel for getting the alcohol into the system.

Double evacuation. This method involves the use of a "vacuum indicator," consisting of an insulated test tube containing a wet bulb thermometer with its wick immersed in distilled water, which is connected to a high efficiency vacuum pump suction line. Its operation depends on the fact that water will boil at 35° under a high vacuum.

When the vacuum pump is started, the wet bulb thermometer will be at approximately room temperature, say 70° F. The thermometer will fall as the vacuum pump operates, which should continue until the indicator shows a temperature of 35° F. If the system is then opened at the point farthest from the vacuum pump, incoming average air will sweep out much of the remaining moisture. Re-evacuating the system down to 35° F. will leave the average system with approximately one part moisture per million parts of "Freon."

Appliance Firm Sets Up Branch

BINGHAMTON, N. Y.—City Electric Co., appliance wholesaler with headquarters in Syracuse, has established a branch store at 178 Water St.

Inspecting Equipment Closely at Midwest Educational Exhibits



A method of testing expansion valves was shown by Sporlan Valve Co. In the exhibit are J. W. Robinson, Little Rock, Ark.; Bill Wischmeyer and Bud Barry, Sporlan; and Richard Zix, Cincinnati.



Cecil Boling (right), Heat-X-Changer Co., shows Edward Krezminski and John Zanella, Joliet, Ill., what is thought to be the first glass-tube water-cooled condenser built for display purposes.



(Left) Raymond Kuntz of St. Louis confers with Jim Norris and Austin Jones of Kerotest Mfg. Co. on some cutaways of Kerotest valves and other products.



(Right) Getting a close look at the "workings" of a General Electric condensing unit is Charles J. Wunderlick of Glendale, Mo., as Max H. Munger of G-E stands by ready with any necessary explanation.



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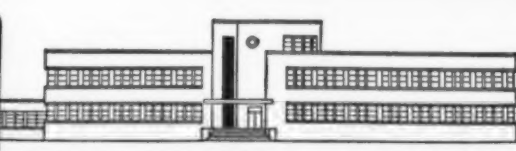
That's the reason... a profitable reason... why Tom Clark, Kurt Mathis and

Leo Reinhart (above, left to right) are sold on PENN controls. Owners of Wisconsin Refrigeration Supply Co., Milwaukee, Wisconsin, here's what they say in their own words... "We have many calls for Penn Controls as our customers, service contractors, like them for their dependability and long life."

Such preference for PENN Controls results from outstanding performance on the job! It is performance that reduces service calls... wins customer satisfaction... and increases sales and profits for you. Don't settle for less... for something "almost as good." Next time you need refrigeration controls... pressure or temperature, automatic hot gas defrosters, differential pressure controls, water valves, line starters, humidistats and solenoid valves... switch to PENN. Ask your wholesaler or write Penn Electric Switch Co., Goshen, Indiana. Export Division: 13 E. 40th St., New York 16, U. S. A. In Canada: Penn Controls, Ltd., Toronto, Ont.



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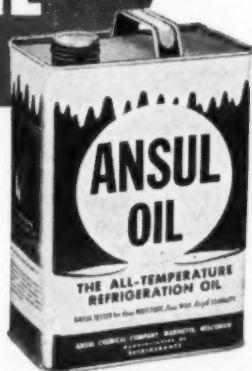
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ANSUL Refrigerants



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Moisture in refrigeration systems results in the formation of ice, rust, sludges, and contributes to the development of other impurities and complications. These seriously interfere with the proper operation of a refrigeration system.

ANSUL Technicians have prepared a series of bulletins on the effects of moisture and other foreign matter in refrigeration systems. Copies may be obtained from ANSUL wholesalers or by writing directly to Ansul Research.

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Explanations Help at Midwest Educational Exhibit



Charles Cavanaugh of Bush Mfg. Co. (left) explains a point to two visitors to the Bush exhibit designed to show construction and operating features of commercial refrigeration evaporators.



Blower operation in a packaged air conditioner is being explained in the Typhoon Air Conditioning Co. booth at the Midwest Refrigeration and Air Conditioning Educational Exhibit.

Mineral Wool Chart Gives Amount Needed To Stop Condensation

NEW YORK CITY—To eliminate guesswork and avoid the use of formulas, an alignment chart has been devised and copyrighted by Industrial Mineral Wool Institute here which readily shows how much insulation is required on cold piping, ducts, and tanks to prevent sweating.

To use the chart for determining how thick the insulation must be to avoid condensation on these cold surfaces, one has to know the temperature of the liquid or gas in the pipe or vessel plus the temperature and relative humidity of the surrounding air.

There are three vertical scales on the chart, as illustrated. In employing the chart, one determines the difference between the surrounding air temperature (T_1) and the temperature of the cold liquid or gas (T_2).

Running a straight line between the temperature difference located on the left-hand scale and the relative humidity of the ambient air as located on the right side of the center scale will show in inches on the right-hand or "X" scale how thick the mineral wool insulation must be to prevent sweating.

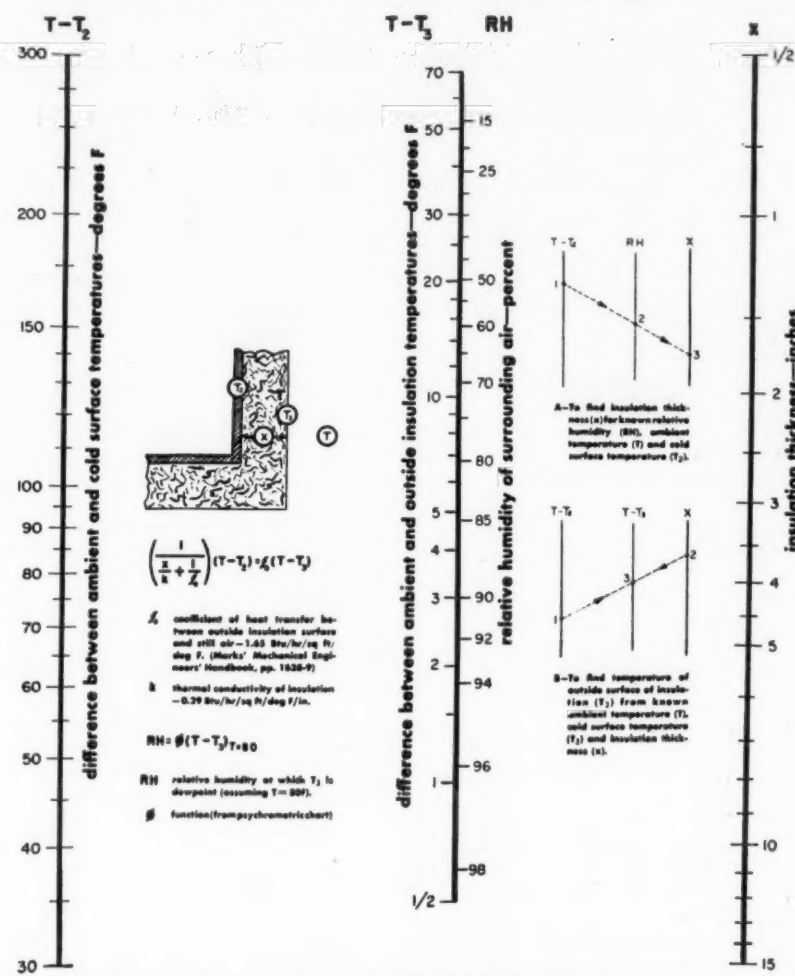
Chart is based on a K factor of 0.29 for mineral wool.

Two examples illustrate how the alignment chart may be used. A sheetmetal duct in an air conditioning system carries cool air at 48° F. through a basement where the ambient temperature often reaches 93° F. and the humidity rises as high as 85%. Then $T_1 - T_2$ (93-48) is 45 and r.h. equals 85%.

A straight line drawn through 45 on the left-hand scale ($T_1 - T_2$) and 85 on the center scale (r.h.) is found to intersect the right-hand or X-scale at 1½ in.—the minimum insulation thickness required to prevent sweating on the cool-air duct.

In a second example, a tank containing brine at 27° F. (T_2) is to be covered with 6-in. thick (X) blanket insulation (as recommended by Commercial Standard CS105-48, "Mineral Wool Insulation For Low Temperatures"). The maximum temperature of the surrounding air is known to be 82° F., but the plant manager must know the highest relative humidity that can be tolerated without

How Much Insulation Is Required?

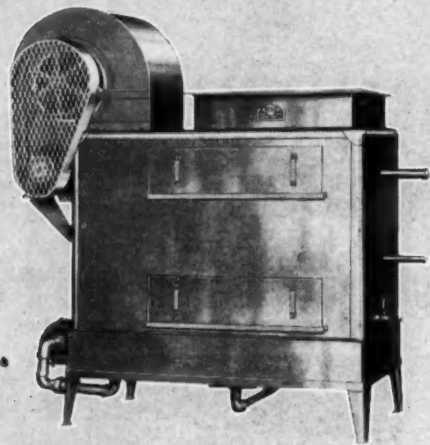


sweating on the surface of the tank.

Using the alignment chart, a straight line is drawn through 55 (93-48) on the left-hand ($T_1 - T_2$) scale and 85 (X in inches) on the right-hand scale. The line crosses the center (r.h.) scale at about

94½%, the highest relative humidity that will not result in sweating.

The center scale also indicates that, in this case, the temperature difference ($T_1 - T_3$) between the surrounding air and the outside surface of the insulation is about 1½° F.



"Dri-Fan" Evaporative Condenser



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Hercules Offers New Pipe Joint Compound

NEW YORK CITY—Hercules Chemical Co., 332 Canal St., plumbing and heating supplier, has developed a new pipe joint compound.

According to the company advantages of this new product are: No oil separation. The compound may be used straight out of the can at any time without mixing; no running upon application. The compound clings to the metal, when brushed onto pipe threads, forming a full-bodied, uniform, "tacky" film; no hardening in the can. The compound remains in suspension indefinitely, therefore, it does not lump, settle, or harden; no freezing of joints. Joints made up with the compound are absolutely leakproof, but may be "broken" easily when necessary.

The compound is suitable for screw joints on steam, gas, water, air, and ammonia lines. Also for lines carrying dilute acids and alkalis.

It is available at plumbing and heating wholesalers in ½ to 5-lb. size cans.



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Midwest Educational Exhibits Show How Service Equipment Works



In the Henry Valve Co. booth C. J. Kissel, Louisville, Ky., turns over a problem with Guy Henry while at right Ervin Whelan, Elgin, Ill., listens to an explanation of a large-capacity valve from Ray McCahill and Gordon W. Wheeler of Henry.



A cutaway of a carbonator and Temprite Products Corp.'s Carbonator Liquid Level Control Relay engage the attention of (l. to r.) J. D. Merkle, Normandy, Mo.; Charles Knollman, St. Louis; Jim Goodwin, Temprite; and Kenneth Hite, Kokomo, Ind.



L. O. Dunn and M. J. Meiklejohn of McIntire Connector Co. (left) tell E. H. Churchwell, Tulsa, Okla., and R. L. Williams, Oklahoma City, about the new "Drier-Graphs."



A specially designed system has been developed by Universal Cooler to show effects of changes in length of capillary tubing. Viewing it are (l. to r.) Don Taft, service manager for the company; Norbert G. Daman, Des Moines; Ray Mozley, St. Louis; R. H. Guthrie, Canada.

Louisiana Supermarket Has More Cases, More Space To Accommodate Bigger Crowds

NEW ORLEANS—Thought by its owners to be the largest supermarket in the world, the new Schwegmann Bros. market under construction here will have approximately 400 lineal feet of open self-service refrigerated cases when it is completed next fall.

With its 300-ft. front and 240-ft. depth the new super will be located just outside the New Orleans city limits, set back 150 ft. from Airline road, the main highway to Baton Rouge, the state capital of Louisiana.

Besides the 100% pre-packaged meat operation and a wide variety of groceries, this new market will sell liquor, wine, drugs, light hardware, feeds, work clothes, and such sporting goods as fishing tackle and shotgun shells, in addition to providing a restaurant and a bar.

On a smaller scale, many of these items are now being retailed through the firm's first store in New Orleans proper, which was established just 3½ years ago.

"With the new store we're merely trying to provide enough room so people can get in," declared John Schwegmann, Jr.

"The quickest way to discourage buying is not to give the customers enough room. In the new store the aisles will be 11 to 12 ft. wide, which is just about double the average."

In addition to the 400 ft. of open cases, refrigerated space in the new market will include four sizeable walk-in coolers. These and the cases will be installed by United Refrigeration, Inc., New Orleans distributor for Ed. Friedrich Sales Corp.

The cases will take up most of the two side walls and the back of the new market. Across the back will be 180 ft. of open pre-packaged meat cases—18 of Friedrich's OC-10R 10-ft. meat cases. There will be a continuous row of seven cases and another continuous row of 11 such cases, with a slight interruption for a doorway.

Along the left wall there'll be 88 ft. of vegetable cases, consisting of eight OV-11R 11-ft. open cases. These will be in two groups of four cases each.

Approximately 132 ft. of open frozen food and dairy cases will be strung along the right-hand wall. All the cases will be installed over shallow trenches carrying the refrigerant and drain lines as well as electrical conduit.

Largest of the four walk-in coolers that will be installed in the new market is the 20 by 50-ft. meat cooler. The produce cooler will measure 24 ft. square; the dairy cooler, 20 ft. square, while the fish cooler is to be 10 by 10 ft. in size. Ceiling height of the coolers is 8½ ft.

In all, 13 remote condensing units will be employed in addition to self-contained system to supply the refrigeration for the market. There'll be a 10-hp. machine for the meat cooler, a 5-hp. for the dairy walk-in, a 5 and a 2-hp. unit for the vegetable cooler, three 5's and a 2-hp. for the 18 open meat cases, a 5 and a 2 for seven dairy cases, and two 5's for the eight vegetable cases.

Go after sales with a
BTC PORTABLE DISPLAY CASEand
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Here's the new way to step up your frozen food sales — go after them with a BTC Portable Display Case. BTC's revolutionary display case enables you to place frozen foods where store traffic is heaviest... and to cash in on the tie-in with related food items.

The BTC Portable Display Case is small enough to fit almost anywhere in the store, yet has ample room for 190 average frozen food packages. Its low-level superstructure is fluorescent lighted with 3-dimensional, full-color pictures that attract attention and win more sales. Other features include two price panels, stainless steel top trim, plug-in operation, smooth rolling casters and a 5-year warranty against food spoilage and mechanical defects in hermetically sealed compressor unit.

**PORTABLE DISPLAY CASE
Model DC6-2**

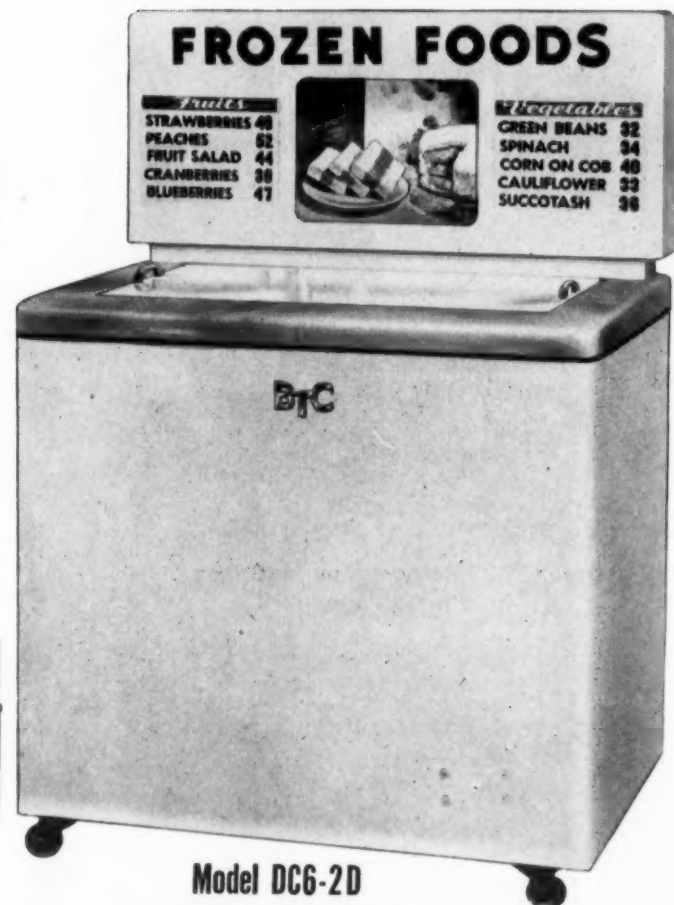
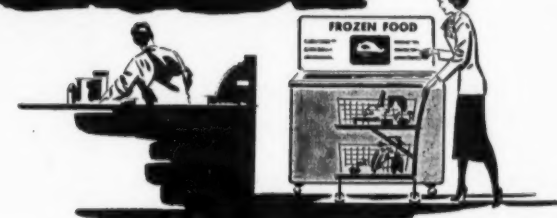
Has same features as above model with 3-dimensional pictures replaced by mirror for effective display of contents.



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Some Factors To Understand In Operating Motor Protectors, Starting Relays For Hermetic Compressors

Editor's Note: Among the excellent talks presented at the 1950 Midwest Refrigeration and Air Conditioning Educational Conference held in St. Louis under the co-sponsorship of REMA and RSES was one entitled "Inherent Motor Protectors and Current-Operated Starting Relays for Hermetic Compressors," by C. A. Patterson, field engineer for Spencer Thermostat.

Because this discussion was identical in subject and similar in detail to one published in the May 9, 1949, issue of AIR CONDITIONING & REFRIGERATION NEWS following its presentation before the Detroit RSES chapter, the NEWS is publishing below only the highlights from Patterson's talk. For a complete discussion, readers are referred to the earlier issue.

"Electric motors used in the smaller hermetic compressors which incorporate our starting relay are either of the split-phase or capacitor-start type. These split phase and capacitor start induction motors have two windings. One, the running winding, is used in both the starting operation and the running operation. The other, called the starting or phase winding, is used only during the starting period.

"It is characteristic of these motors that no starting torque is present while the motor is at a standstill unless the starting winding is in the circuit. On the other hand, in the normal range of operating speeds the best motor performance is obtained when the starting winding is out of the circuit.

Therefore, it is apparent that the starting winding should be connected at zero speed. The speed at which the start winding is disconnected is chosen by the motor manufacturer to provide adequate starting torque, minimum starting noise and minimum heating of the starting capacitor and starting winding. In general this disconnecting speed is around 75-80% of the synchronous speed.

"On open type motors this starting sequence is most commonly taken care of by a centrifugal-type starting switch which has the advantages of a low first cost and the characteristic of being dependent only on the motor speed for its operation.

In the case of hermetic units, the motor itself is exposed to the oil

and refrigerant gas within the compressor shell. Electrical arcing of the contacts of a centrifugal starting switch operating in this oil and refrigerant gas would prove harmful to the life of the unit and therefore a means of connecting and disconnecting the starting winding must be provided outside of the compressor housing.

"In practice there are many ways by which this can be done. A voltage or potential relay operated by the voltage induced across the start winding is one method used. Another method used is the thermal or 'hot wire' relay which is operated by the line current and which is calibrated to disconnect the starting winding after a pre-determined length of time. A third method is the current operated magnetic relay, which takes advantage of the fact that the current drawn by the main winding

varies with the speed of the motor. After thorough consideration of all these different kinds of relays, we decided on the simple current operated magnetic type as it is our opinion that this device is the one which is most nearly dependent upon the speed of the motor for its performance and which at the same time is relatively inexpensive.

"Our current type relay consists essentially of a solenoid coil through which the main winding current flows at all times; a magnetic iron plunger; and a bridging type contact arm which is normally held in the open position by its own weight and that of the iron plunger assembly. The bridging contact arm makes connection with starting winding during the starting operation when the heavy inrush current energizes the coil and the iron plunger pulls the contact arm up to the closed position.

"At the very beginning of the starting operation, the main winding is connected through the relay coil. The heavy inrush current energizes the relay coil, the iron plunger rises and the bridging contact arm connects the starting winding to the circuit. The value of current in the main winding necessary to bring the contact arm to its closed position is known as the 'pick-up' current.

"Once the starting winding is connected, the motor starts and accelerates. As the motor comes up to speed, the main winding current, which is the current through the relay coil, decreases. At some time before the motor has come up to full speed, the current through the relay coil has decreased enough so that the magnetic force holding the contact arm in the closed position is less than the combined weight of the contact arm and the iron plunger. The contact arm then drops down to its normally open position and the motor continues to run on the main winding only. This value of current that allows the starting winding to be disconnected is called the 'drop-out' current.

"Because of the varying field conditions that may be expected in different parts of the country, the selection of the proper relay rating must take into consideration the extreme conditions that are met in actual practice.

"This means that the 'pick-up' current of the relay should be equal to or less than the lowest inrush current that could be expected in the field. It also follows that the 'drop-out' current of the relay should be equal to or higher than the highest drop-out condition that could be expected in the field.

"Since the correct relay rating for any given compressor design is established only after thorough and complete laboratory tests, it is plain that all replacements should be made only on the basis of the exact relay rating in question and not on the basis of motor horsepower rating.

"By definition the word 'inherent' means 'permanently contained, or joined.' As applied to motors, the phrase 'inherent motor protector'

means that the device is made as much a part of the motor as is possible and practical. On open type motors this is accomplished by mounting the protector in the end bell of the motor. On hermetic refrigeration units this is accomplished by securing the protector firmly on the compressor housing as near as possible to the motor iron. This is more popularly known as 'dome mounting.'

"If it is felt that the protector is not operating properly, a replacement protector of the same type and rating should be obtained. We suggest that replacement protectors be obtained from the refrigerator or compressor manufacturer. Since he is probably using the rating in question continuously, no time would be lost in obtaining the replacement part. Another advantage of going direct to the refrigerator or compressor manufacturer is that with the protector and refrigerator units numbers given, any change in the original specifications would automatically be passed along.

"The purpose of the inherent protector is to protect the motor insulation against overheating without at the same time penalizing motor performance by 'cutting out' before the maximum allowable temperatures are reached.

"The maximum safe continuous temperature or the insulation most commonly used in open type motors is 105° C. Note that the word 'continuous' is emphasized. Insulation life is a function of time and temperature, which means that the insulation can be operated at temperatures higher than 105° C. for short periods of time without noticeable influence on the life of the insulation.

"Because of the extensive testing necessary for a satisfactory protector application, the only practical place for this to be done is in the engineering laboratory of the compressor or refrigerator manufacturer. Thus, to make full use of the engineering already done, servicing should be based on making an exact replacement or using ratings furnished by the refrigerator or compressor manufacturer."



Frank Carter (left), Detroit Lubricator Co., explains how to overcome pressure drop in a refrigeration system with the elaborate working model which the company set up at the recently-concluded St. Louis educational exhibits.



An interested attendee at the REMA-RSES sponsored St. Louis exhibits "sees for himself" the workings of a system set up by Lehigh Mfg. Co. to demonstrate condensing unit operation. Chan Coombs (right) of Lehigh stands by to explain.

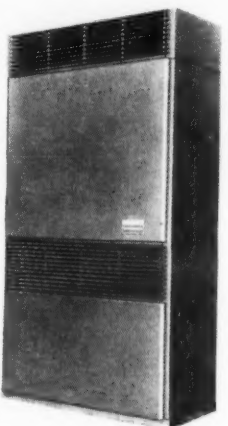
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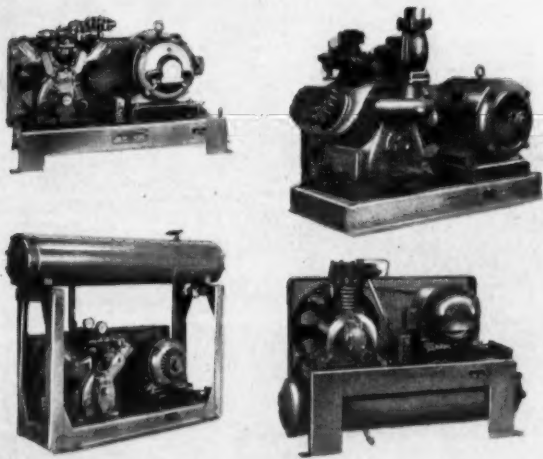
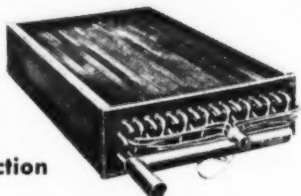
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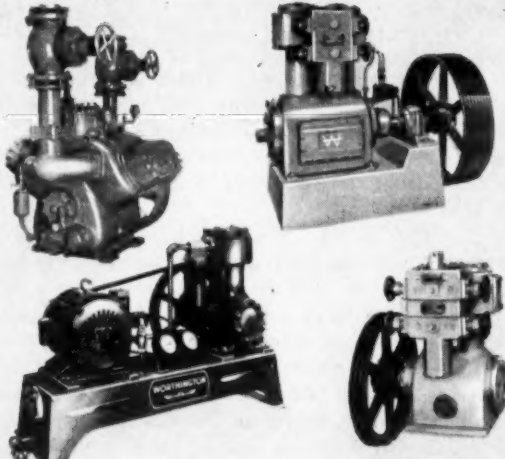


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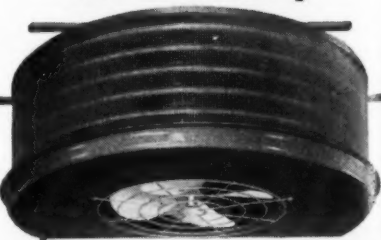
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'Fiberglas Is In Your Life . . . For Good'



Barry McCabe of Owens-Corning Fiberglas Corp. conducts one of the several hour-long road show performances in Detroit.

Road Show Depicts How Owens-Corning Product Is Being Used In Industry Today

DETROIT—Based on the theme "Fiberglas Is In Your Life . . . For Good," an hour-long road show touring most major market areas is being staged twice a day by Owens-Corning Fiberglas Corp. to demonstrate for the trade how Fiberglas in its various forms is being used by industry today.

Recently the show drew nearly 1,000 invited guests when it was staged eight times over a four-day period in the Detroit-Leland hotel here with the assistance of Detroit branch personnel. The afternoon showings were preceded with lunches while a cocktail hour and buffet dinner started off the evening performances.

Talks and demonstrations using the actual product as well as displays of various products employing Fiberglas in various forms were featured on the program.

Fiberglas applications as insulation received most emphasis both for refrigeration applications and heating. Because in its regular form Fiberglas is 1% glass and 99% air (Aerocor is .2% glass and 99.8% air), it has wide use as insulation, it was emphasized.

In a graphic demonstration staged during the show, a pie was placed in the oven of an electric range set

at 425° F. along with a carton of ice cream wrapped in Fiberglas. At the end of the show when the baked pie and ice cream were removed from the range, the ice cream had softened only slightly. Similarly wrapped in Fiberglas, a still piping hot container of coffee was removed from a refrigerator where it had been placed before the show was started.

How Fiberglas is employed in refrigerators, ranges, cold storage rooms, refrigerant and steam lines, homes, automobiles, and ducts (for both heat and acoustical insulation) was outlined and demonstrated, besides its use as electrical insulation and in air filters.

In addition, it was shown how the glass fibers have been adapted for fabrics and also as reinforcement for many paper and plastic materials.

Personnel in the road show is changed constantly, being made up largely of young sales trainees, who after doing a stint on the road, are assigned to a branch or main office post.

Benoit Is Freshmaster Regional Sales Manager In Philadelphia Area

NEW YORK CITY—John M. Bess, president of Freshmaster Corp. here, has announced the appointment of Walter Benoit as regional sales manager, operating out of the newly-created Freshmaster Corp.'s factory branch in Philadelphia.

Benoit was formerly a sales manager for General Electric Co., Bloomfield, N. J., contacting original refrigeration equipment manufacturers.

Prior to his General Electric association, Benoit was eastern district manager, seaboard sales to manufacturers, for the Nash-Kelvinator Corp.

Freshmaster operates factory-controlled branches in key cities under the tradename of Valmart.



Walter Benoit

Davison Chemical Corp. Sponsors Educational TV Feature In Baltimore

NEW YORK CITY—A weekly television show, "The Johns Hopkins Science Review," an educational feature televised Fridays at 9:30 p.m. (EDST) from Baltimore's WAAM (ABC) is sponsored by the Davison Chemical Corp. of Baltimore, it was announced here by Stanley J. Keyes, Jr., vice president of St. Georges & Keyes, Inc.

Davison's sponsorship marks the first time industry has employed television as an educational medium, it was said. The shows consist of a series of science demonstrations given by leading Johns Hopkins scientists under the direction of Lynn Poole of the Johns Hopkins university.

C. F. Hockley, president of Davison Chemical said the general educational format of the show would be retained, but guest speakers representing Baltimore's business, educational, and civic interests would be added to discuss the relationship of chemical manufacture to the industrial and community activities of the city.

Davison Chemical, one of Baltimore's oldest and largest concerns, was once known primarily as a fertilizer manufacturer. Now the company has diversified and in addition to fertilizers produces a general line of chemicals, among them silica gel, silicofluorides, and a diversified line of catalysts. St. Georges & Keyes, Inc. of New York is the agency.

with a **United** DRY-KOOL BOTTLE COOLER

You eliminate slippery wet bottles with a United Dry-Kool. This fine bottle cooler features quick EVEN cooling, clean DRY handling and United's exclusive "Lift-A-Way" doors. Manufactured in 4, 6, 8 and 10 foot sizes, the Dry-Kool can be had with either detached or self-contained refrigerating unit.

NO WASTE SPACE

United Dry-Kool bottle cooler efficiently swallows case after case in its roomy, well-planned interior.

SIMPLE TO INSTALL

Dry-Kools present no installation problems . . . and are attractive fixtures in any business establishment.

For Complete Information Write or Phone

UNITED REFRIGERATOR COMPANY
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The American Indian wasn't so dumb. He knew a lot of answers . . . and he knew how to spread the news.

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Smoke signals met the requirements of the

Indians a century or so ago . . . but the residents who settled in Kansas, Nebraska, and Wyoming demanded a better news service.

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Americans like to get their news from newspapers. And in an industry where a newspaper is devoted to the news of that industry . . . that newspaper commands an exceptionally high degree of readership. AIR CONDITIONING & REFRIGERATION NEWS is a newspaper.

Your advertising works ONLY when it is READ.

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See your jobber or write for free bulletins and installation data.

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1687 12th STREET • TWO RIVERS, WIS.

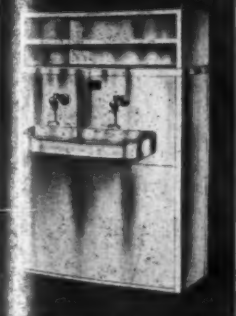
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**Filtrine** HIGH EFFICIENCY

Costs no more Gives much more

Service Satisfaction Dollar value

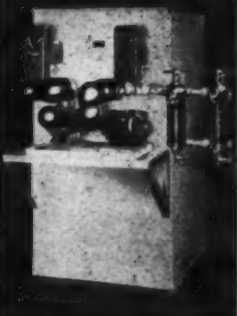
COOL, CLEAR, DECHLORINATED WATER WITH . . .

FILTRINE FILTER-DECHLORINATORS

Eliminate tastes, odors, foreign particles. Promote cooler satisfaction — dealer sales.

INDUSTRIAL PROCESS COOLERS

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Refrigeration Problems

and their Solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

Greasy Coils, Drains and Ducts

A recent inquiry from a reader concerns cleaning the drain pan and drain line in a commercial reach-in refrigerator.

GREASE AND SLIME IN EVAPORATOR DRAIN PAN

"Is there any solution or cleaner which can be used periodically in a reach-in box to keep the grease and slime out of the drain connected to the coil catch pan? We have one here which we have to clean every so often with a wire. It seems that the grease, small pieces of foreign matter, etc., get into this tray (which is on the bottom of the interior portion of the food compartment) and with the water from the coil on the defrost cycle, tends to form a slime which eventually blocks the drain. Drano, etc., would cause food to taste, we believe. What can be used, or isn't there anything on the market suitable?"

John H. Spence, service manager

of Hussmann Refrigeration, Inc., received a copy of our reply, with the request that he add his comments, since his company must have had similar inquiries from their dealers.

Spence's letter to the reader contained some very helpful and practical suggestions, and is being quoted as follows, as there may be other readers who will benefit by it.

USE OF HOT SOAP WATER

"You do not state where the reach-in is located, but since your description of the trouble refers to grease being on the fin and tube coil and the coil drip pan, I am assuming that the reach-in is located in a kitchen where the doors are opened and closed a great many times during the day or even (as I have seen in many instances) the doors may be permitted to stand open where a lot of frying is being carried on.

"In kitchens where the refrigerator is exposed to atmosphere where frying of steaks, bacon, eggs, etc., the air is filled with grease, that will float into the box if the doors are opened a great many times during the day, or are permitted to stand open—even for as much as 30 seconds or more.

"If my assumption regarding the location of the refrigerator is correct, then there is no way in the world that the coil and drip pan can be kept free of grease and slime except to take the front off the blower coil housing about twice a year and lean the fin and coil drain pan by spraying it with a very highly concentrated hot soap solution, at the time that everything is removed from the refrigerator and the entire interior cleaned at the same time.

"Of course, you could use any of the cleaning solvents, but it isn't advisable to use cleaning solvents anywhere around a kitchen where foods may be contaminated either through the odor or having the cleaning solvent drop into or spill on the foods.

"As far as the drain pipe is concerned, if it is a galvanized or lead pipe there is certainly no objection to using such cleaning solvents as Drano because that particular chemical, or a similar one, is used by plumbers in cleaning out drain pipes, in the event they are not permitted to completely disassemble the drain pipe.

"Of course, you could use one of these long spring wires to twist into the drain pipe, which will automa-

tically remove a lot of the scale and slime from the drain pipe; but, here again, this is generally a plumber's responsibility."

To this we may add that if steam is available, it can be used to excellent advantage for cleaning the coil and pan, and for blowing out the drain line.

USE OF LIVE STEAM OR SOLVENTS

Quite a few of the companies who render a service of periodically cleaning draught beer lines, have small portable boilers that they take right into the tavern and use in blowing out the beer lines with live steam. If there is such a beer line cleaning service available in your city, it could well be employed for cleaning the coils, drain pans, and drains in restaurant refrigerators.

Grease from foods and from frying vapors is quite a problem in restaurants. It fouls the ventilating hood and ventilating fan. In air conditioned restaurants, the ducts, grilles, coils, fans, and drains sometimes get so greasy that the stale odor becomes noticeable.

In addition to a hot soap solution suggested by Spence, some of the detergents used in electric dishwashers are very effective. Such solvents as carbon tet, naphtha, etc., are ruled out because of odor; and in the case of naphtha, because of the danger of fire or explosion and in the case of carbon tet, because of its toxic qualities.

Some of the emulsion type solvents recently put on the market are quite effective; they are safe; and they have so little odor as to be practically unnoticeable.

'Cutaways' Were Stylish Dress of Products at St. Louis

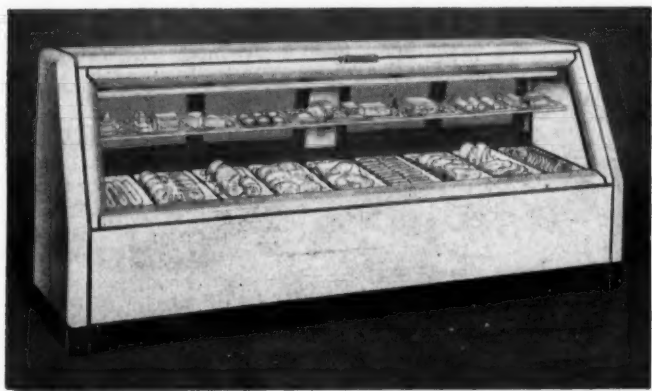


A refrigeration system set up so that maximum observation was provided on operation of all essential components got the concentrated attention of Arthur E. Lautner and E. J. Mohr, St. Louis; Frank Jaeger, Servel; and Arthur W. Judy, St. Louis.



E. W. Kelly of Little Rock, Ark., and Thomas J. Melville, Automatic Products Corp., discuss a problem over a board containing cutaways of A-P valves, solenoids, and other products.

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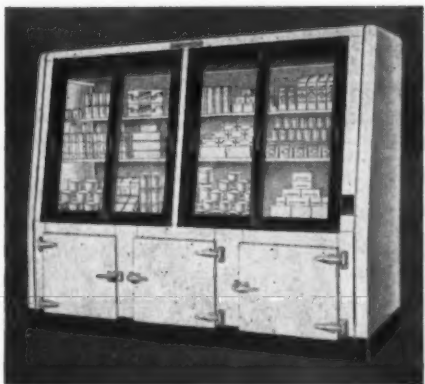
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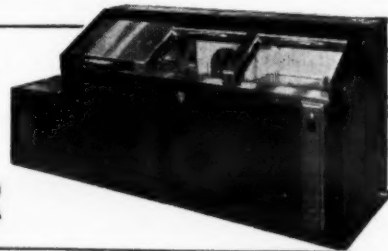
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Your customers will be happier with a Perlick Olympian Bottle Cooler, because of its greater bottle capacity. But that's not all... its better construction and heavier insulation also mean lower cooling cost and longer service.

Now, due to increased demand and mass production economies, the Olympian Bottle Cooler has a NEW, REDUCED PRICE that makes it a better buy than ever!

Write for Bulletin No. 56

Perlick
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RSES Charters New Southern Regional Association



Some of the principals who participated in the formation of the Southern Regional Association of the RSES are shown in this group photo. TOP ROW: J. B. Harris, G. L. Carter, Fred Boxall, and Bill Applegarth. BOTTOM ROW: C. S. Tucker, O. W. Brown, Tom Carnell, and Tom Hart.



Thomas H. Hart, president of the Southern Regional Association of the RSES, points out the general area where new RSES chapters have been chartered at Raleigh and Greensboro, N. C., and at Augusta, Ga.

WATER CONSERVATION

Although Refrigeration Industry Must Aid In Saving Water, Other Users Account for Big Volume

ST. LOUIS—The refrigeration and air conditioning industry "faces the possibility of being made the whipping boy" for the present water shortage despite the fact that this industry uses only a small percentage of the total water being consumed today, warned Ralph A. Gonzalez, manager of product application for Chrysler Airtemp, in a talk presented at the 1950 Midwest Refrigeration and Air Conditioning Educational Conference here.

"Let's stand up and admit our part, but let's also insist that the other factors involved in the water shortage be considered too," he told the servicemen and contractors attending the session.

"Let's admit that water can be saved on refrigeration and air conditioning systems—at a cost—but let's insist that it also be realized that other industries can save water, too."

"In many cities air conditioning and refrigeration account for less than 8% of the total water pumped, so prohibition of water for these systems will alone do little to solve the problem. All other factors must be involved in water conservation, too."

"A lot of other processes can re-use water, too, but our industry has done more of it than anyone else," Gonzalez emphasized.

To give the group some background on the present water problem, Gonzalez pointed out that "the vast majority of the country is blessed with an abundance of water, both sub-surface and surface."

"However," he explained, "we have whittled away our supply in three ways: (1) by actual use in industry, for drinking water, etc.; (2) by pollution, which is destruction rather than waste, and (3) by the destruction of forests and the lack of soil conservation, which results in a faster run-off of rain water."

"Most of the country faces the need for a new approach to the water problem, though it's not generally as serious as in New York City. We must practice reasonable economies in the use of water and correct pollution and erosion problems."

"Work on the abatement of water

pollution has been started on a national scale, especially in the east, while reforestation gained impetus in the 1930's. The great water abuse has been pollution of surface water; the great wastage is the loss of rainfall through erosion."

"In a given area or a city we have a different problem," he declared. "Cities on the Great Lakes, for example, don't have a water shortage, but they may have the man-made problem of inadequate pumping or sewage facilities."

"Water usage in cities seems to be tied in with industrial activity. Pumping of water in Dayton, Ohio, in 1948 was double that of 1940, but 1949 ran below 1948, while 1950 so far is running under 1949."

"In searching for an explanation for these increases, air conditioning and refrigeration have come in for much more credit than they deserve, believe me."

The production of highly finished steel, he said, requires 65,000 gals. of water per ton; a power plant uses 60 gals. per kilowatt; paper manufacture uses 30 gals. per pound.

"Air conditioning and refrigeration systems are frequently cited as big users of water. At 2 g.p.m., that is 60 g.p.m./ton of refrigeration," Gonzalez explained.

Use of water by air conditioning and refrigeration systems in downtown areas of certain cities may pose a problem, he indicated, but this results from inadequate facilities to handle the water.

"It is often charged," he continued, "that air conditioning and refrigeration systems 'waste' water. Actually this water is used to carry away heat."

"The refrigeration and air conditioning industry can help conserve water, and there are cases where the water cost and lack of facilities suggest conservation."

There is more to solving the water problem than conserving present supplies by placing top limitations on its use, he emphasized. Along with water conservation must go measures to increase the supply, just as conservation programs for hunting and fishing involve setting top limits on the catch or kill while efforts are made to restock the forests and fields, explained Gonzalez.

If servicemen or contractors are faced with a water problem in their own communities, they should try to find out how much water is being used, how much is for refrigeration and air conditioning, and how this compares with the total increase in water consumption there, suggested Gonzalez.

He also advised them to obtain copies of the interim program recommended by Air Conditioning & Refrigerating Machinery Association if their city faces a water problem.

"Economical use of water will help protect our jobs," he also cautioned. "On the smaller installations it's the serviceman who controls how much water is used."

Doyle & Roth Names Agent

BROOKLYN—The Doyle & Roth Mfg. Co. here announces that Edwin Elliot & Co., of 560 N. 16th St., Philadelphia, has been named factory representative for Doyle & Roth heat transfer equipment in eastern Pennsylvania and southern New Jersey.

Mississippi, Louisiana, and Tennessee.

Just prior to the presentation ceremony, Harris and Hart, accompanied by Louis S. Levy, international director and president of the Washington, D. C. chapter, presented new charters to the chapters at Raleigh and Greensboro, N. C. and Augusta, Ga.

At the presentation banquet, Harris was handed applications for new charters from chapters at Knoxville, Tenn., and Orlando and Daytona Beach, Fla. Ed Quarles, RSES member at large from Savannah, Ga., asked help in forming a chapter.

A brief educational program was held in connection with the presentation of the regional charter. Ten manufacturers' representatives presented abbreviated demonstrations and lectures as samples of the educational programs available to chapters.

Fred B. Moore, vice president of the Atlanta Chamber of Commerce, presented a corporate charter from the state of Georgia to the regional association and an invitation from the city of Atlanta for the International Association to hold its 1952 convention there.

Other international officers and directors present at the ceremony were H. T. McDermott, secretary; J. D. Nall, sergeant-at-arms; and C. S. Tucker, director.

Calgon Folder Describes Corrosion Inhibitor Use For Water Systems

PITTSBURGH—"Calgon Controls Corrosion" is a new folder offered by Calgon, Inc. here, describing and illustrating the "threshold treatment" whereby minute quantities of Calgon protect industrial, commercial, and municipal water systems against general corrosive attack, eliminate "red water" and control corrosion of hot water systems and industrial cooling systems where water temperatures accelerate attack.

Calgon, because it is strongly adsorbed on most metals and metallic oxides, controls corrosion by forming a sub-microscopic protective film over metal surfaces of the water system, the folder explains. This insulates the surface from the oxygen and other corrosive factors. To obtain this film, Calgon is continuously fed to the water stream.

Effective concentrations of Calgon, under normal conditions of water flow, range from as little as 1 to 2 p.p.m. of water in cold-water systems, up to 5 to 10 p.p.m. in hot-water systems.

April Washer, Clothes Drier Sales Gain over 1949

CHICAGO—Sales of household washers, driers, and ironers during April were all sharply up over the same month last year but were somewhat below those of March, the American Home Laundry Manufacturers Association reported recently.

Drier sales 464% higher than in

April of last year, though their 25,140 unit volume was 7.3% under March.

A volume of 333,072 clothes washers put sales of that appliance 73% ahead of April, 1949. Washer sales were 21.4% behind March.

Ironer sales totaled 31,600, 74.8% over April, 1949.

SERVICE ENGINEERS! DEALERS! Cash in on the compressor replacement market!



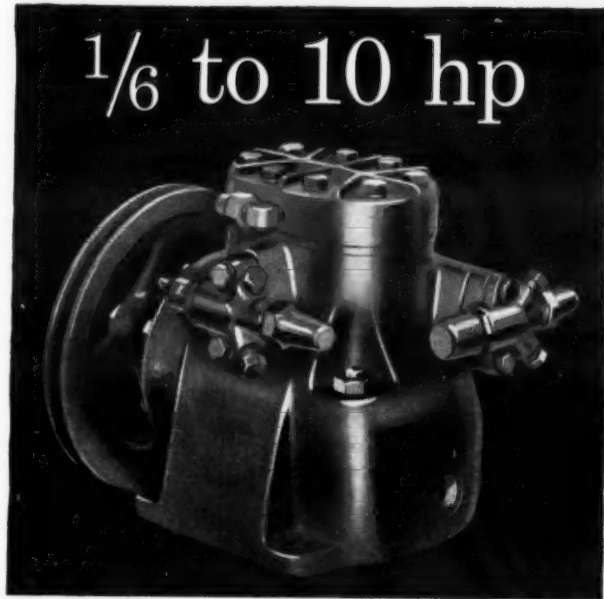
COMPRESSOR BODIES

FIT MOST MAKES of condensing units

- Fit most brands of refrigeration or air conditioning equipment.
- Compact, easy to install.
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CHECK THESE G-E COMPRESSOR FEATURES!

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NOW YOU CAN BUY the compressors that have helped famous G-E condensing units build up an outstanding record for long life and rugged dependability! More than a million G-E commercial units in service today!

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Section AC-18, Bloomfield, New Jersey

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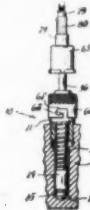
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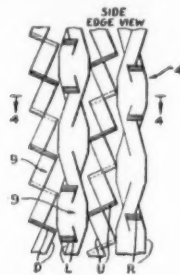
Week of January 3
(Continued)

2,493,311. ELECTRIC TEMPERATURE SENSING DEVICE. Malcolm P. Odell, Minneapolis, Minn., assignor to Minneapolis-Roneywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Nov. 20, 1944, Serial No. 564,378. 13 Claims. (Cl. 201-63.)



1. An insertion temperature sensing device comprising a member of relatively high heat conduction characteristics having a cylindrical inner surface, a temperature responsive resistance wire helically coiled to lie inside said member adjacent the cylindrical surface thereof, a ceramic element supporting said wire and said member, and a metal sleeve supporting said ceramic element but terminating out of contact with said member to prevent heat conduction therebetween.

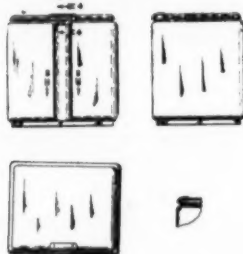
2,493,726. AIR FILTERING MEDIA. Cortland N. O'Day, Port Washington, N. Y., assignor to Air Devices, Inc., New York, N. Y., a corporation of New York. Application June 5, 1947, Serial No. 752,655. 3 Claims. (Cl. 183-70.)



1. An air filter media comprising expanded sheets packed in filter panel form, each sheet consisting of a network of interconnected vanes coated on all surfaces with a viscous liquid, and having greater open-space area for the flow of a dusty air stream therethrough than viscous-surface area for dust arrestance and dust loading thereon, the viscous surfaces of said vanes in each sheet being inclined in the same direction to the plane of the sheet, with each successive sheet disposed in an oriented angular relation to the preceding sheet, at least four of said sheets being embodied as a group in the filter media, the successive orientation of the sheets of said group providing a 360° rotation of the air in passing therethrough, whereby the dusty air stream entering the filter is divided and redivided into a multiplicity of small streams which are deflected laterally and guided forwardly with a turbulent mixing action along a helical course through the media, by which dust arrestance and loading as aforesaid is effected centrifugally on the rear as well as the front viscous surfaces of the sheets.

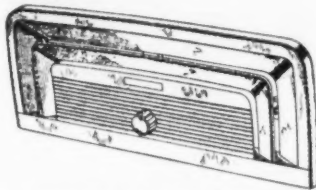
DESIGNS

156,760. FREEZER CABINET. George Orley, Detroit, Mich. Application Jan. 29, 1949, Serial No. 567. Term of patent 3½ years. (Cl. D67-3.)



The ornamental design for a freezer cabinet, as shown and described.

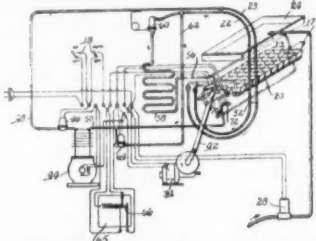
156,790. AIR REGISTER GRILLE PLATE OR SIMILAR ARTICLE. Arthur C. Wesche, Bridgeport, Conn., assignor to General Electric Co., a corporation of New York. Application Feb. 19, 1949, Serial No. 951. Term of patent 14 years. (Cl. D62-4.)



The ornamental design for an air register grille plate or similar article, substantially as shown.

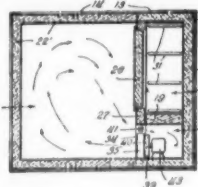
Week of January 10

2,493,900. AUTOMATIC ICE CUBE MAKER. Fred H. Schaberg and Norris H. Theriault, Andover, Mass. Application June 12, 1948, Serial No. 32,716. 11 Claims. (Cl. 62-105.)



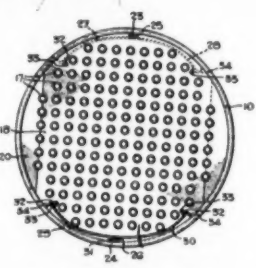
1. Apparatus of the class described comprising a tiltable ice cube tray, means operative periodically to tilt the tray, a liquid reservoir for the tray, flexible conduits associated with the tray for conducting freezing fluids thereto and vapor therefrom, an electric relay for controlling the operation of the tray tilting means, a compressor, a condenser, a low pressure electric switch to operate the relay and compressor, and means operated by the relay to loosen the cubes in the tray.

2,493,958. MULTIPLE COMPARTMENT REFRIGERATOR. George C. Foerster, Amana, Iowa, assignor to Amana Society, Amana, Iowa, a corporation of Iowa. Application Feb. 6, 1946, Serial No. 645,849. 10 Claims. (Cl. 62-6.)



2. In a sectional refrigerator, the combination of a first and second section adapted to be fitted together and having intercommunication when fitted together, the first section having a first refrigerating compartment, the second section forming a second refrigerating compartment with the first section when the sections are secured together, means for securing the sections together, refrigerating means in the first section for cooling both of said compartments, a first refrigerant conduit for cooling the first compartment by conduction, a second refrigerant conduit in the first section, means for impelling air over the second refrigerant conduit and into the second compartment for cooling the second compartment by convection, and means responsive to the temperature of the second refrigerant conduit for controlling the temperature of the second compartment.

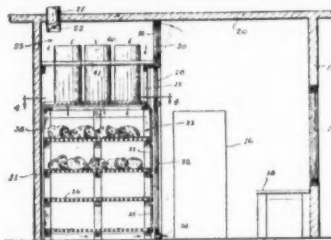
2,493,969. HEAT EXCHANGER. Floyd D. James, Whittier, Calif. Application January 12, 1946, Serial No. 640,861. 4 Claims. (Cl. 257-239.)



3. An anti by-passing shield construction for a heat exchanger of the type having a shell and a tube bundle within

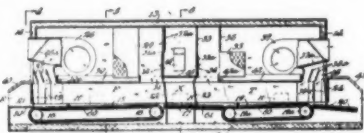
the shell and cross flow baffles disposed along the tube bundle with recesses provided in the edges of the baffles along the length of the shell, comprising a single rod adapted to be seated in the recesses so as to lie lengthwise of the tube bundle and laterally of the direction of cross flow, a plurality of pairs of shields for the rod, there being a pair of shields for each of the spaces between the baffles, the shields of each pair being disposed on opposite sides of the rod, one shield of each pair having a narrowed center portion which is reversely bent to provide a center knuckle, the other shield of each pair having spaced portions reversely bent to provide a pair of spaced knuckles, the rod being slidable through the knuckle with the spaced knuckles straddling the center knuckles to swingably mount the shields, the free margin of each shield being bent outwardly so as to be engageable with the interior surface of the heat exchanger shell, and a leaf spring fastened on the under side of each shield adjacent its outer margin engageable with the exterior of the tube bundle for urging the shields outwardly into engagement with the interior of the heat exchanger shell, the rod and the springs being the sole means of mounting the shield construction and the shields being otherwise unconnected and unfastened to the baffles or tube bundle.

2,494,024. METHOD AND APPARATUS FOR REFRIGERATING AND AGING MEAT. Beverly E. Williams, Chicago, Ill. Application Dec. 30, 1944, Serial No. 570,521. 4 Claims. (Cl. 99-194.)



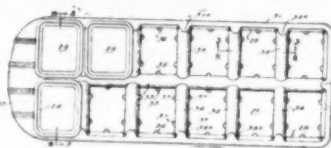
1. An apparatus for treating meat comprising a meat aging chamber, a plurality of aging racks therein, detachable perforated screens surrounding individual racks for dividing said chamber into a plurality of compartments, means for charging air to said chamber, means for discharging air from said chamber, and a plurality of cooling units disposed within said chamber for cooling and humidifying said air to a temperature of about 32° F. to 40° F. and a relative humidity of above about 90%, said cooling units being maintained above freezing and being so constructed and arranged in the proportion of about one square foot of surface cooling area for each cubic foot in said compartments so that the temperature differential between said cooling units and the meat is relatively small, said perforated screens being of sufficiently fine mesh to substantially retard the flow of said conditioned air in said compartments to prevent undesirable dehydration of said meat but providing sufficient air flow to preclude slime formation on the surface of said meat and to permit diffusion of properly conditioned air between said compartments.

2,494,027. MULTISTAGE METHOD AND APPARATUS FOR FREEZING COMESTIBLES. George A. M. Anderson, Owatonna, Minn., assignor to The King Co., Owatonna, Minn., a corporation of Minnesota. Application March 20, 1946, Serial No. 655,673. 10 Claims. (Cl. 62-102.)



1. In freezing apparatus, an elongated tunnel having an entrance and a delivery, at least three sets of closures dividing said tunnel into a pair of adjacent conditioning chambers, means for maintaining said chambers at different freezing temperatures, conveying means in said tunnel for transporting articles from the receiving end to the delivery end thereof, means for normally maintaining said closure means in closed positions, said closure means in each instance being arranged to be momentarily opened by travel of articles in contact therewith, and an air chilling and recirculating system having a discharge of chilled air at the entrance of said tunnel directed inwardly of said tunnel and another discharge of chilled air at the delivery of said tunnel directed outwardly and means associated with said system for withdrawing the circulated air from zones in said tunnel at the inner ends of said adjacent conditioning chamber.

2,494,043. ICE TRAY. Douglas L. Jocelyn, Detroit, Mich. Application Sept. 17, 1945, Serial No. 616,836. 7 Claims. (Cl. 62-106.5.)

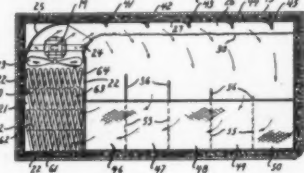


1. A liquid freezing device, comprising a pan shaped tray frame formed with a continuous bottom and upwardly extending side walls, a plurality of liquid freezing receptacles and grid members formed integrally in said bottom and side walls forming spaces for the reception of said receptacles, said bottom having drain holes therein.

2,494,074. BEVERAGE COOLING CABINET OF DRY AIR TYPE. Louis Weiss, St. Louis, Mo. Application June 2, 1947, Serial No. 751,651. 12 Claims. (Cl. 62-102.)

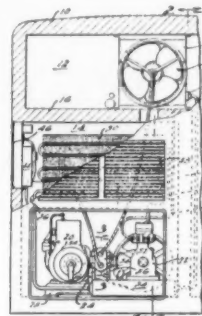
1. In a beverage cooling cabinet of dry, circulating air type, a box structure having a top angle opening, and closures providing, when open, for access to the interior of the box, an air supply duct in the uppermost portion of the box and back of said opening, a second duct substantially parallel to the first said duct, and located in the lowermost part of the box and adjacent the wall thereof opposite

the first said duct, a cooling coil across which air is adapted to be passed in the



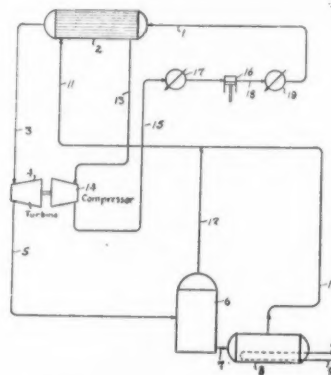
course of circulation through the ducts and the interior of the box, a fan in the duct assembly for moving air there-through and through the box, and partitions across the interior of box and in planes substantially at right angles to said ducts.

2,494,117. REFRIGERATING MEANS, INCLUDING A PLURALITY OF FANS AND ADJUSTABLE MEANS FOR DRIVING THE SAME. Edward F. Dickleson, Jr., Detroit, Mich.; Nathalie L. Dickleson, executrix of said Edward F. Dickleson, Jr., deceased. Application July 10, 1947, Serial No. 759,991. 7 Claims. (Cl. 62-115.)



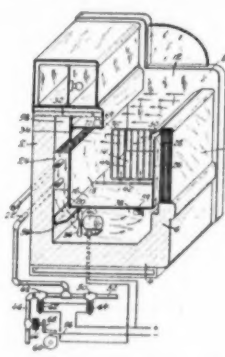
1. In refrigeration apparatus having an evaporator, a fan for circulating air over said evaporator, a condenser, a fan for circulating air over said condenser, a compressor for circulating refrigerant from the condenser to the evaporator, a power source, and endless belt means connecting said power source and said compressor, a fan drive and belt tightener structure comprising an adjustable case, drive and driven shafts carried by said case, gear means connecting said drive and driven shafts, a pulley on said drive shaft peripherally engaging said endless belt means to drive said drive shaft and adjustable with the case to vary the tension of said endless belt means, and flexible cables connecting said drive shafts to respective of said fans.

2,494,120. EXPANSION REFRIGERATION SYSTEM AND METHOD. Bernardo J. Perro, Jr., Bartlesville, Okla., assignor to Phillips Petroleum Co., a corporation of Delaware. Application Sept. 23, 1947, Serial No. 775,708. 13 Claims. (Cl. 62-115.)



1. A method of refrigeration comprising compressing a gas to superatmospheric pressure, cooling the gas to about saturation temperature at that pressure, isentropically expanding said gas to liquefy a portion thereof, separating the liquid portion from the unliquefied gas, and passing the liquid portion in heat exchange relation with a warmer substance to be cooled.

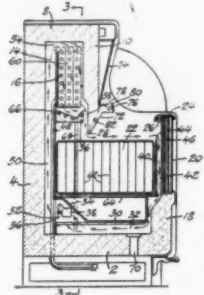
2,494,480. SELF-SERVICE REFRIGERATED CASE HAVING A DEFROSTING SYSTEM. Malcolm D. MacMaster, Woodside, Pa., assignor to C. V. Hill & Co., Inc., Trenton, N. J., a corporation of New Jersey. Application April 29, 1946, Serial No. 665,912. 18 Claims. (Cl. 62-2.)



1. A self-service refrigerated display case comprising a display space which is thermally insulated about its bottom and side walls but open at the top for access to customers, an article support spaced from said bottom and having opposite edges thereof spaced from opposite side walls of the case, baffles extending upward adjacent said opposite edges of the article support and spaced from said opposite side walls of the case, said baffles terminating below the upper edges of said opposite side walls and cooperating with said side walls and article support to define an air circulating duct extending beneath said article support and having its opposite ends open and located at substantially the same level but below the upper edges of said opposite side walls of the case, refrigerating means in said duct, means for positively circulating air through said duct, and means located adjacent the upper edge of one of said opposite side walls for directing air horizontally across

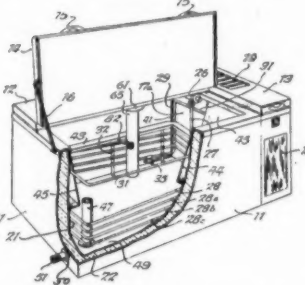
the upper portion of said display space from one end of said air circulating duct to the other below the open top of the display space.

2,494,481. REFRIGERATED SELF-SERVICE DISPLAY CASE. Malcolm D. MacMaster, Woodside, Pa., and Victor W. Smith, Trenton, N. J., assignors to C. V. Hill & Co., Inc., Trenton, N. J., a corporation of New Jersey. Application Nov. 30, 1946, Serial No. 713,284. 8 Claims. (Cl. 62-89.5.)



1. A refrigerated self-service display case permitting unobstructive access to articles therein comprising means forming a chamber which is open at the top and thermally insulated about the front, bottom, rear and ends of the chamber, said chamber having means forming a display space therein which is open at the top for access to said space, means forming an air channel extending about the front, bottom and rear of the display space, said channel terminating in inlet and outlet openings communicating with said space at the front and rear thereof respectively and at points adjacent but below the top of said chamber, refrigerating means located in said air channel adjacent said outlet opening, means for positively circulating air in a cycle through said channel and over said refrigerating means to said outlet opening at the rear of the display space, means for directing substantially all of the air thus circulated horizontally across but below the top of the chamber to said inlet opening whereby said air, while at its lowest temperature in the cycle, is the cycle, is caused to establish an air curtain opposing infiltration of external air downward into contact with articles in said display space.

2,494,512. MILK COOLER HAVING AUTOMATIC CONTROL MEANS. Clare H. Kafer and Howard D. White, Adrian, Mich., assignors to Revco, Inc., Deerfield, Mich. Application June 11, 1946, Serial No. 675,943. 12 Claims. (Cl. 62-7.)



1. Cooling apparatus comprising a cabinet having a relatively fixed cover section and a removable lid, a refrigerating coil in the cabinet disposed around the walls thereof and in the lower portion of the cabinet, said coil terminating in a suction line loop positioned adjacent the upper portion of the cabinet, inclined guard and skid plates positioned at the front portion of the cabinet over said suction line loop and having a flange portion disposed over the coil in the lower portion, and overflow drain pipe mounted in the cabinet and adapted to maintain a body of liquid therein at about the level of said flange portion, thereby to submerge the coil except for said suction line loop, and a liquid circulating pump extending downwardly from fixed cover section to nearly the bottom of the cabinet and adapted to circulate said liquid from the bottom along said submerged coil.

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Pat. 2,299,347. REFRIGERATED DISPLAY SHELF. Patented Oct. 20, 1942.

Pat. 2,446,788. REFRIGERATED DISPENSING CABINET.

Pat. 2,455,809. PACKAGE AND CABINET FOR FROZEN FOODS.

Pat. 2,460,396. FROZEN FOOD DISPENSER.

Pat. 2,460,469. REFRIGERATOR HAVING A DOOR HEATING DEVICE.

Pat. 2,480,339. FORCED AIR REFRIGERATED DISPLAY CABINET.

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Demonstration Panels, Cut-Away Models Highlight Exhibits at St. Louis Show



LEFT: One of the contestants, in writing about the exhibit that had proved most helpful, said he liked Mueller Brass Co.'s control panel full of valves and other devices "because it shows you what you've read about and been told about." Paul Domke of Mueller, at right, does a run-through on the various devices.



ABOVE: Marlo Coil Co. had a cut-away cooling tower on which service check points could be noted. Viewing it here are F. G. Meyers, Marlo; Arthur H. Huhn, N. O. Nelson Co., St. Louis; and Walter Frenger, Marlo.



RIGHT: Many manufacturers of smaller parts had cut-away samples available which could be handled by the visitors to the exhibits, as is being done in the Penn Electric Switch Co. space, with R. H. Luscombe (left) of the company ready to help out with an explanation, if needed.

RIGHT: Some of the companies that make large equipment had small models on hand to demonstrate operating principles, as is the case here with Acme Industries, manufacturer of heat transfer devices of various kinds for refrigeration systems.



LEFT: A Mitchell room air conditioner is literally "uncovered" for the benefit of attendees at the Exhibits. John H. Spence, general chairman of the St. Louis affair, is at the far right in this group.

'Recold' Distributor In Hong Kong Names Jarvis

LOS ANGELES—Harold Jarvis, son of Hy Jarvis, vice president and general manager of Refrigeration Engineering, Inc., has joined the staff of Gilman & Co., Ltd., distributor for "Recold" products in Hong Kong.



Harold Jarvis

Following his graduation from Occidental college, "Hal" decided to follow his father's footsteps in the refrigeration and air conditioning industry, and sought a place where he could receive practical training in all branches of the industry's work.

Albert Rebel, in charge of export sales for the company, convinced him that working with a firm outside of the U. S. would be ideal for such training and helped to get him the Hong Kong post.

During the time he spent completing his scholastic training, Hal worked in many of the departments at the Refrigeration Engineering, Inc. plant here.

April Sales of Vacuum Cleaners Increase 16%

CLEVELAND—Factory sales of vacuum cleaners in April totaled 292,664 units, about 16% above the April, 1949, figure of 252,656 but nearly 19% under the March volume of 361,014, according to the Vacuum Cleaner Manufacturers' Association.

In the first four months of 1950, factory sales amounted to 1,166,343 units, against 1,032,896 in the corresponding figure a year ago, or an increase of close to 13%.

4 Cooled Stores Open In N. C.

RALEIGH, N. C.—Four new stores, all air conditioned, held formal openings recently in modern, colorful Cameron Village here. They are: The Village Pharmacy; Burton's, women's ready-to-wear shop; Jean Dickinson, gifts and decorative accessories; and Cameron Village Jewelers.

ReDisCo Plans To Open Philadelphia Office

DETROIT—Refrigeration Discount Corp. has announced plans to open a new branch office in Philadelphia.

C. R. Brogan, general manager of the Nash-Kelvinator affiliate, said arrangements for leasing the necessary space are nearly completed. Brogan said the new office will be the fifth branch opened this year, in a move to expand the company's services.

With the addition of Philadelphia, Brogan said ReDisCo will have 22

branch offices throughout the nation. Other new offices opened this year are in Charlotte, N. C., Houston, New Orleans, and St. Louis.

Previously established branches are at Baltimore; Boston; Buffalo; Chicago; Cincinnati; Dallas; Denver; Detroit; Greenville, N. C.; Jacksonville, Fla.; Kansas City, Mo.; Los Angeles; Memphis; Newark, N. J.; Oakland, Calif.; Portland, Ore.; and Salt Lake City.

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CAREFULLY SELECTED group of trained men, graduates of reliable and well established trade school now available to fill positions in the radio or refrigeration field. Willing to travel anywhere. Why not fill that vacancy with an efficient and reliable man? Write EASTERN TECHNICAL SCHOOL, 888 Purchase Street, New Bedford, Mass.

SALES MANAGEMENT (national, division, district) with commercial refrigeration, air conditioning, heating, or refrigeration equipment manufacturer. 16 years experience in industry. Correct age. Abilities: management, organizational, promotional, application engineering, merchandising and sales training. Energetic with plenty of drive. Well acquainted with distributors and jobbers throughout the United States. Live anywhere. Free to travel. Write BOX 3506, Air Conditioning & Refrigeration News.

YOUNG MAN with practical training in domestic and commercial refrigeration plus training in repairing of seal units. Eligible for G.I. training; 26, single. Will go anywhere in U.S. BOX 3509, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

SALES ENGINEER and/or manager. Carrier distributor for Pittsburgh, Pennsylvania has an exceptionally fine opportunity for well experienced air conditioning sales engineer. Applicant should be thoroughly experienced in management, sales, and engineering. Please direct your inquiries to JOHN HARRISON COMPANY, P.O. Box 9535, Pittsburgh 23, Pennsylvania.

RESEARCH ENGINEER. Well known manufacturer in Middle West has position for experimental and research engineer. Experience with low side heat transfer equipment necessary. Write giving full details first letter. Address BOX 3510, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

WHOLESALE SEALED unit rebuilding. We will rebuild and convert your unit to "Freon-12." One year guarantee. Write for price list and shipping instructions. ADVANCE REFRIGERATION COMPANY, 829 East McNichols Road, Detroit 3, Mich.

SIXTY TON hermetic air conditioning compressor. Well known make. Used short time but in good condition. \$1200.00 FOB Cincinnati. BIMEI CO., Cincinnati, Ohio.

REFRIGERATOR DOORS. 3'6" by 6'6" double batten auto close doors complete with removable track heads for 72" track. 1 1/2" corkboard insulation. Brand new. \$95 each. Freight prepaid in U.S. BIMEI CO., Cincinnati, Ohio.

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BUSINESS OPPORTUNITIES

FOR SALE: commercial refrigeration sales & service handling nationally known commercial and domestic refrigerators and counter equipment. This is a bona fide going business with unlimited possibilities. Located in Middle West. Will sell for inventory, with or without building. Address BOX 3507, Air Conditioning & Refrigeration News.

INVESTMENT OPPORTUNITY: Commercial refrigeration manufacturer retiring. Established over seventeen years. I've made mine and am offering a wonderful opportunity to the right man who can carry on. Age requirements, 35 to 45. Other needed qualifications—sales experience, manufacturing know how and complete knowledge of commercial refrigeration. Factory is located in the thriving city of Seattle, Washington. Building also owned and can be acquired with the business or leased. Minimum cash requirement \$30,000.00, balance to be secured by note or mortgage and can be paid from profits. The person who takes advantage of this opportunity should be independent in less than 10 years. Full details will be furnished to qualified investors. BOX 3508, Air Conditioning & Refrigeration News.

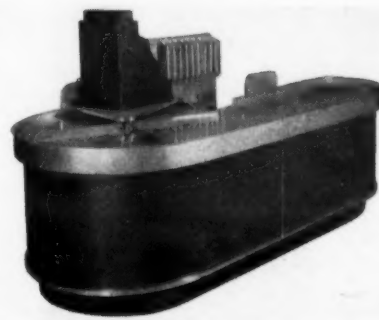
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NORGE SEALED units remanufactured and exchanged. Immediate delivery from stock, 1 year guarantee. Write for prices and shipping instructions. Complete Norge engineering service. 22 years experience. MODERN REFRIGERATION CO., INC., 12541 E. McNichols Road, Detroit 5, Michigan.

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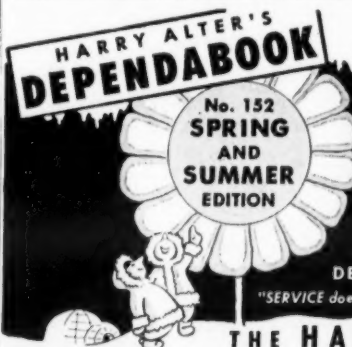
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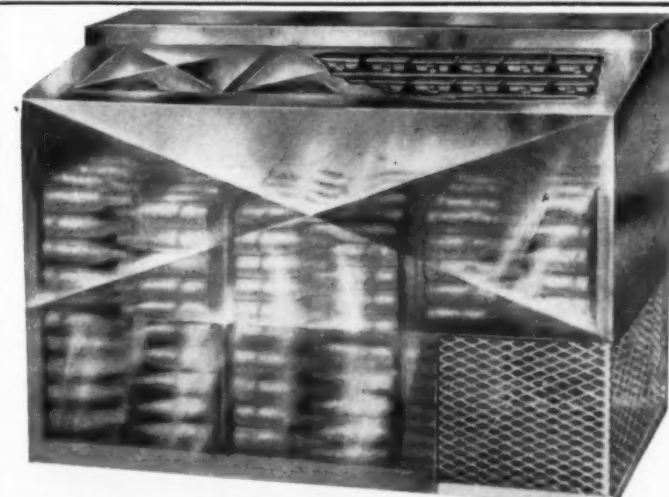
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"A CASE OF COOL JUDGMENT"

Shanklin Elected ACRMA President--

(Concluded from Page 1, Column 2)

"In my opinion, to do an effective job we need to do two things within ACRMA. We need to broaden the scope of our activities and we need to attract to us all of the representative manufacturers in our industry."

"There is no industry in the United States with a brighter potential future than the air conditioning and refrigeration industry. Its products are basic essentials to the nation's peacetime and wartime economy. It has seen tremendous advances in product development and application in the past 20 years."

ACRMA RESPONSIBILITY

"It is our responsibility in ACRMA to do all we can to see that the industry continues to grow strongly and soundly for the benefit of the users of the product, which is to our benefit as manufacturers. We must continue to practice that enlightened selfishness by continuing to formulate equipment and application standards to serve as guide-posts for our customers and the sound growth of the industry; we must continue to provide statistical data so that we may intelligently plan our production and sales; we must continue to be able to meet, with confidence, strength, and effectiveness, the many problems which are a daily challenge to the industry's progress and development."

"As individuals and individual companies, we cannot hope to cope successfully with many of these large problems. As a group, collectively, with each giving his best efforts to



ARTHUR M. SHANKLIN

the common cause, much can be accomplished, as it has been in the past."

Singled out for special honor were six men from ACRMA member-companies who were felt to be the principal architects in the formulation of the American Standard Safety Code for Mechanical Refrigeration (ASA B9, sponsored by ASRE) and whose five years of work on this fundamentally-important industry document had been successfully concluded during the year. The men honored by formal resolution of the association's annual meeting were:

E. T. Benson, Frigidaire; J. R. Chamberlain, York; F. H. Faust, General Electric; W. A. Grant and D. M. Abel, Carrier; and W. R. Hainsworth, Servel.

Guest speakers at the annual meeting and the ACRMA annual luncheon were Joseph E. Moody, president of the Southern Coal Producers' Association and H. B. McCoy, director of the Bureau of Domestic Commerce of the U. S. Department of Commerce. Moody, for a number of years, was prominently identified with the refrigeration industry in industrial relations activities.

URGES ACTION IN POLITICS

In speaking on the subject "Washington—Crossroads of Industrial Might," Moody emphasized particularly the need for those interested in the welfare of business and the maintenance of American free enterprise to take a personal and active part in politics.

"Too many of those engaged in business and industry feel that their personal political responsibility ends with the making of a cash contribution to a political campaign fund. They apparently do not realize that of equal or greater importance is making known to their legislative representatives in Washington their views on the important issues which affect the welfare of industry as a whole."

"Labor, agriculture, and other elements of our national economy are not so politically naive or lazy as are businessmen in general. Labor, agriculture, and other groups are constantly and highly vocal in pressing their viewpoints on their elected representatives. To the senators and congressmen, most of whom are sincerely attempting to do their best for their own constituents and the nation, these voices represent the voters back home to whom they must be responsive, or face defeat in the next election. But the voice of business, expressing the views and representing the votes of the local business community is rarely heard by the individual senator or congressman."

CASH NOT ENOUGH

"Naturally, the businessman, who has perhaps contributed cash but none of his personal self to the fight in the political arena, is frustrated, confused, and angry at the enactment of legislation which unfairly penalizes him and his business operations. But in the last analysis, it is the businessman himself who is to blame because of his lack of personal interest and effort to influence the course of political events which so vitally affect him."

Punctuating his remarks with illustrations from his eight-months' experience in the recent turbulent negotiations with the United Mine Workers which ended early this year, Moody said "the Southern operators were not beaten finally by their labor union and government opponents but

by their 'friends,' the coal operators of the North and West. As a result of the Southerners' loyalty to principal and refusal to be subservient to the threats of property expropriation and dictation by a labor autocrat, many of them are ruined financially and have had to close."

COMMERCE AIDS CITED

McCoy outlined the activities in which the Department of Commerce is engaged on behalf of American business. He particularly stressed the marketing aids available to industry and the efforts of the Secretary of Commerce to clarify the anti-trust situation.

McCoy emphasized the need for and the possible effects of closing the dollar-gap in the United States' foreign trade situation and its essentiality to the future peace and well-being of the whole world.

George S. Jones, vice president of Servel, Inc., and chairman of the Distribution Council of the Department of Commerce, in introducing McCoy, said that just before the convening of the ACRMA meeting that day, word had been received from Washington that McCoy had had his official responsibilities greatly increased and that, among these responsibilities, was that of the control of all United States exports.

In addition to the election of Shanklin as president, other association officers elected were:

First vice president—G. E. Wallis, The Creamery Package Mfg. Co.; second vice president—F. H. Faust, General Electric Co.; treasurer—G. A. Heuser, Henry Vogt Machine Co.

Elected to constitute ACRMA's board of directors in addition to the association officers were:

W. H. Aubrey, Frick Co., Inc.; A.

J. DeFino, Fedders-Quigan Corp.; Maynard Ford, Parks-Cramer Co.; T. E. Hoyer, Savage Arms Corp.; George S. Jones, Jr., Servel, Inc.; S. E. Lauer, York, Corp.; H. F. Lehman, Frigidaire; W. C. Newberg, Airtemp; A. B. Newton, Acme Industries, Inc.; D. Robertson, Universal Cooler; F. W. Smith, Baker Refrigeration Corp.; T. E. Smith, Westinghouse Electric Corp.; A. O. Vogel, The Vilter Mfg. Co.; and C. E. Wilson, Worthington Pump and Machinery Corp.

Servel Sales Rise 83% In Quarter, Jones Reports

EVANSVILLE, Ind.—An increase of 83% in sales of Servel, Inc. in the three months ended April 30, 1950—second quarter of its fiscal year—is reported by W. Paul Jones, president, in a letter to stockholders.

Sales amounted to \$15,178,553, compared with \$8,300,987 in the same quarter a year ago. For the six months ended on April 30, sales amounted to \$23,254,613, compared with \$16,920,092 in the same period of the previous year.

Jones told stockholders results of operations indicated a favorable trend despite heavy, extraordinary costs resulting from the steel and coal strikes. All divisions of the company operated in the black throughout the second quarter, he stated.

Woolworth Store Air Cooled

CHARLESTON, W. Va. — Completely air conditioned, the F. W. Woolworth Co. has opened its modern five-floor structure on the Capitol St. site where the old store burned.

Production Delays Hurt Carrier Business, But New Orders Hit Record High

SYRACUSE, N. Y.—Net profit of Carrier Corp. (air conditioning, refrigeration, and industrial heating) for the 12 months ended April 30, 1950, was \$1,099,046, or \$1.47 per common share, as compared with \$2,083,320, or \$3.14 per common share, for the preceding similar period.

Completed business totaled \$44,358,536. The comparable figure for the 12 months ended April 30, 1949, was \$51,198,786.

New orders were booked in the amount of \$49,603,083. The total for the preceding 12 months was \$48,634,081.

On April 30, 1950, the corporation had a backlog of unfilled orders amounting to \$26,180,781, as compared with \$20,174,779 one year earlier.

These figures are exclusive of a sizable government contract obtained in fiscal 1949 under which deliveries are expected to be made in substantial volume during the months to come.

Commenting on Carrier's current affairs, Cloud Wampler, president, said: "Business completed during the six months ended April 30, 1950, was materially below expectations because of production delays resulting in part from the steel and coal strikes. However, new orders were booked at a very satisfactory rate, and the total for this period set a new high record for the first half of the fiscal year."

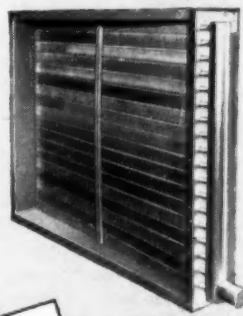
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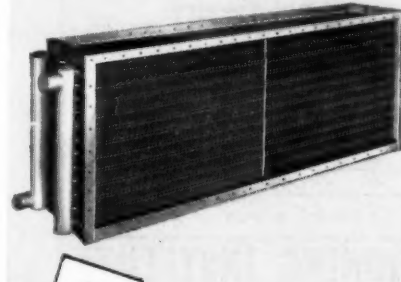
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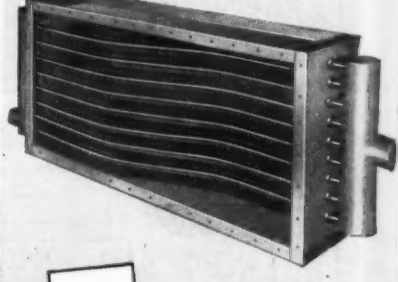
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